THE RAJPUT PALACES

The Development of an Architectural Style, 1450–1750

G. H. R. TILLOTSON

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North-western India boasts a collection of palaces whose scale and grandeur place them among the world's most impressive. Built between the fifteenth and eighteenth centuries by the Rajput maharajas—the Hindu warrior rulers who became the chief lieutenants of India's last Islamic emperors, the Mughals—they have long been appreciated by travellers, but this book represents the first detailed study of them.

The palaces range from pavilions which seem to float on the surface of the lake at Udaipur, to dramatic fortified hilltop retreats such as Amber—stylistic variations which reflect the rajas' differing preoccupations with pleasure and with war. *The Rajput Palaces* offers a glimpse into courtly life, the feudal society which supported it, and the relations between the Rajput rajas and their Mughal overlords. All are influential factors inseparable from Tillotson's analysis of the style of the Rajput palaces, which sets out to demonstrate that in spite of their differences, the palaces together represent a distinct and consistent architectural movement. Special attention is paid to the dependence of the palaces on an ancient Hindu heritage and on local folk culture; and to their relation to the palaces of the Rajputs' Islamic neighbours, including the Mughals. This last point leads to a fundamental reassessment of the role of patronage in the development of architectural ideas in India.

The survey covers all the major former Rajput state capitals—cities which have now dwindled to provincial towns, mostly contained within the modern state of Rajasthan. They include fortress capitals of ancient foundation such as Chitor and Gwalior; cities established at the height of Rajput cultural achievement such as Udaipur and Bikaner; and those of comparatively recent origin such as Jaipur. These are places more familiar to the tourist than to the scholar, and the book does not assume specialist knowledge of Indian history or architecture; Tillotson provides a detailed yet accessible examination of this spectacular but little studied school of architecture.

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G. H. R. TILLOTSON

Yale University Press
New Haven and London · 1987

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Designed by Faith Glasgow
Filmset in Linotron Bembo and printed in Great Britain at The Bath Press, Avon

Library of Congress Cataloging-in-Publication Data

Tillotson, G. H. R. (Giles Henry Rupert), 1960–
The Rajput palaces.
Bibliography: p.
Includes index.
1. Architecture, Rajput—India—Rajasthan.
2. Palaces—India—Rajasthan. I. Title.
NA1507.R35T5 1987 725'.17'09544 86–24544
ISBN 0–300–03738–4

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FOREWORD

The traveller in north-western India is rewarded – indeed many are lured – by a group of palaces which are among the world's most impressive. They are over two dozen in number: some border placid lakes, others crown almost inaccessible hilltops; many rival the Gothic cathedrals in scale, and in their best decorative details they are unsurpassed. They were built by the Rajput maharajas in their former state capitals, now provincial towns in the modern state of Rajasthan and in parts of neighbouring Madhya Pradesh.

The Rajput palaces are the surviving representatives of a now vanished civilization, and yet it is a civilization not so long past as to be altogether forgotten, and the palaces are young by comparison with many of India's monuments. They therefore combine a nostalgic appeal with a more immediate and accessible charm; and they are – second only to the Taj Mahal – favourites among tourists, both Indian and foreign. Despite this still growing interest, they have by and large escaped serious study, and there is little material on them readily available, beyond local guides. It was a frustrated tourist, keen to know more about them, who embarked on the writing of this book.

The starting-point was a visit to Rajasthan in 1979. This was followed by other visits including a season of field-work in 1983–4. The field-work was the basis of a doctoral dissertation written at Cambridge between 1982 and 1986, and it is on the dissertation that the present work is based. Travelling in areas more familiar to the tourist than to the scholar, however, the book does not assume specialist knowledge of Indian history or architecture. The palaces together reveal the development of a consistent architectural style; the book aims to define that style, and to investigate its place in the history of Indian architecture as a whole, especially in relation to its Hindu heritage and its Islamic neighbours. The palaces are considered with respect to their use and, more especially, to the ideals and aesthetic which inform their design.

I have great pleasure in expressing my gratitude to the Master and Fellows of Trinity College, Cambridge, for the grant of a three-year Research Studentship which enabled me to undertake this work; and to my research supervisor, Dr Raymond Allchin.

I have also been advised, encouraged and assisted by Dr J. C. Harle, Dr Gordon Johnson, Mr Robert Skelton, Dr John D. Smith, Mr Andrew Topsfield and Dr David Watkin.

While conducting my field-work I received valuable assistance from the following people: in Bikaner – Dr J. K. Jain (Director), Rajasthan State Archives; Mr Magaj Singh (Director), Junagadha Palace Museum; in Bundi – Mr Lucien Anthony Quadros;

in Delhi – Brigadier J. R. Cornell CBE and Mr Mark Runacres, British High Commission; in Dungarpur – H. H. Sir Lakshman Singhji, Maharawal Sahib of Dungarpur; in Jaipur – Dr Asok Das (Director) and Mr Yaduendra Sahai (Keeper), Sawai Man Singh II Museum; Dr Mrs Chandramani Singh; Lieutenant General Sir John Chapple KCB, CBE; in Jaisalmer – Mr Lalit Kothari, Collector and District Magistrate; Mrs Menakshi Hooja IAS; Mr Brijratan Ojha; in Jodhpur – Shobha Kanwar Baiji; Rao Raja Nahar Singh; Maharaj Prahlad Singh (Manager), Mehrangarh Museum Trust; Thakur Nahar Singh Jasol (Director) and Mr Mahendra Singh (Assistant Director), Mehrangarh Museum; Mr Donal Sheridan; in Kota – Mr Madan Mohan Shastri (Director) and Mr M. L. Joshi (Assistant Keeper), Rao Madho Singh Museum; in Rewa – Dr H. A. Quazi (Curator), Rewa Fort Museum; in Udaipur – Maharaja Arvind Singh Mewar and Maharani Vijayraj Kumari Sahiba of Udaipur; Mr Tulsi Nathji (Curator) and Mr Joshi Vinod (Assistant Keeper), City Palace Museum.

Access to certain buildings was made possible by permission received from the offices of: H. H. Lt. Col. Sawai Bhawani Singh MVC, Maharaja of Jaipur; The Rajdadi Amarkotiji of Jaisalmer; Maharaj Kumar Ranjit Singh of Bundi; H. H. Shri Martand Singhji, Maharaja of Rewa.

I should like to record my gratitude also to Mr Charles Correa, Miss Rosemary Crill, Mr Giles Eyre, Mr Robert Gillett, Miss Faith Glasgow, Mr Simon Glynn, Dr Robert Hillenbrand, Dr Boyd Hilton, Mr Niall Hobhouse, Professor Ron Lewcock, Miss Pippa Mason, and Serenissima Travel Limited; to my family and particularly my parents-in-law for their very great help and enthusiasm; and most especially to my wife, Sarah, who was obliged to read every page of the manuscript at every stage of its development.

G.H.R.T.
July 1986

Photographic Acknowledgements

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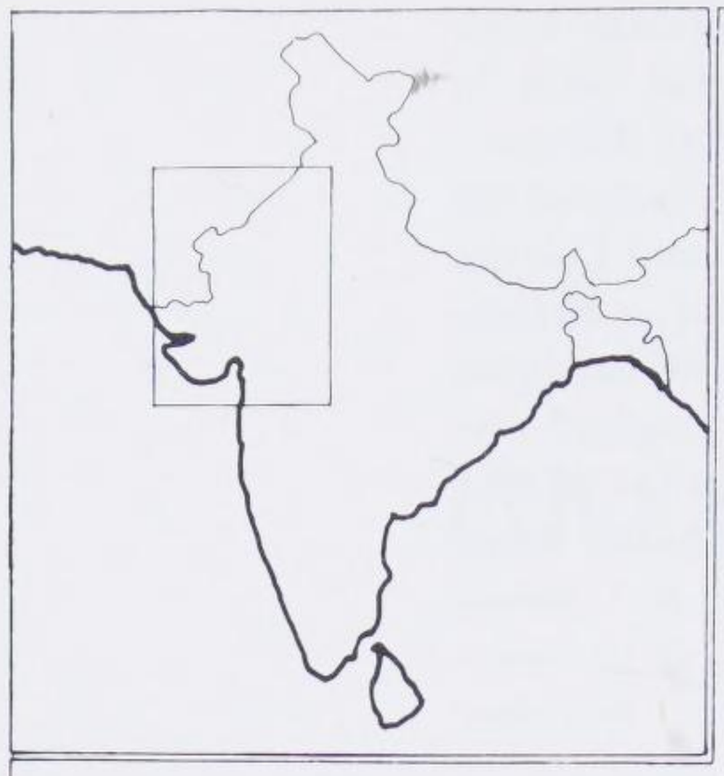
The transliteration of Indian words and names follows no established system; it is intended to render as closely as possible local pronunciation and local spelling. A glossary of Indian terms which are used (but not always translated) in the text, together with a note on the names of palaces, may be found on pp. 207–8.

The figures in square brackets refer to the plates (arabic numerals to the black and white, roman numerals to the colour plates).



Thar or Indian Desert

Delhi

Bikaner

Dig

Bharatpur

Agra

Amber

Jaisalmer

Jaipur

F´Sikri

Ajmer

Gwalior

Jodhpur

Bundi

Datia

Aravalli Hills

Orchha

Kota

Chitor

Udaipur

Chanderi

Dungarpur

Ahmadabad

Mandu

100 miles

20° N

78° E

ARABIAN SEA

One

A General Introduction

1. The political context

When the adventurer Babur invaded India and established the Mughal dynasty, he had to quell two distinct resisting powers. By first killing Sultan Ibrahim Lodi at the battle of Panipat in April 1526, he established his claim to the throne of Delhi; but he subsequently had to defend that claim against a confederation of Rajput rulers under Rana Sanga of Mewar. In both fights Babur's forces were heavily outnumbered, but the later one was by far the more difficult and it was only after he had won it, at the battle of Khanua in March 1527, that Babur's position was anything like secure. More than three centuries before, in 1192, Muhammad Ghuri of Ghor had become the first Muslim conqueror of Delhi and he too had had to contend with the Rajputs in order to secure his position: he defeated the last Hindu king of Delhi, the Rajput Prithviraj III, at Tarain. Indeed throughout the whole period of the Muslim political domination of northern and central India, the Rajputs formed the major Hindu powers which offered resistance.

The origin of the Rajputs is still a matter of controversy. Their legendary origin is given in the *Prithviraja Raso*, allegedly written by Chanda Bardai, a court poet of Prithviraj III of Delhi (1178–92). According to this epic, the four prototypal Rajput warriors were created out of the fire-pit of Mount Abu by the *rishis*, to oppose the *rishis*' enemies. Western writers, including Vincent Smith, have asserted that of the first Rajput rulers some were the chiefs of the hordes of Huns who invaded India before the death of Harsha (647 AD) and the remainder were chiefs of aboriginal tribes.[1] Such writers interpret the fire-pit legend as depicting a ceremony in which the foreigners and tribals were ritually cleansed and accepted into the Hindu caste system, in order to make them fit to fight for the Brahmanical cause. Recent Indian writers, such as R. B. Singh, dismiss this argument as a characteristic attempt by English historians to justify foreign rule by reference to precedent. Singh asserts that the Rajputs are descended from yet earlier Hindu dynasties, and suggests that the passage in the *Prithviraja Raso* which describes the ceremony at Mount Abu is a sixteenth-century interpolation, designed to substantiate the Rajputs' claim of divine descent.[2] This interpretation of the *agni kula* legend is credible, but Singh's more general argument is informed more by chauvinism than by scholarship, and the theory of foreign origin has at least the merit of accounting for the subsequent history of the Hun invaders.

A literal translation of the term 'Rajput' as 'ruler's son' has misled many writers into supposing that it is a mark of aristocratic rank. It may originally have been such, but its compass was widened at a very early date. The term 'Rajput' is, first

1. Rajput capitals and their neighbours

and foremost, the name of a caste, a subdivision of the *kshatriya varna*. Within this caste group, as within most others, there has long been a great diversity of occupation and social standing: the caste includes a social range from kings and nobility to soldiery, some members of all of which professions bear the name Singh ('lion') which is the emblem of the caste. It may be added in passing that the Rajput states always included among their citizens many non-Rajputs at all levels of society; most obviously this non-Rajput group included the Brahmins, the Jains, the tribals and members of the low castes.

Given the social range covered by the term 'Rajput', it is quite wrong to suggest that all Rajputs 'claimed aristocratic rank',[3] unless one is thinking of that aristocracy which includes 'The Aristocrat who banks with Coutts, The Aristocrat who cleans the boots'. It is also wrong to assert that the term 'has no concern with race, meaning descent or relationship by blood'.[4] The Rajputs consist of a large number of clans; frequent intermarriage between these clans and a strong reluctance to marry non-Rajputs, from their first appearance in history, have established strong blood relationships. Whether the clans share a common racial origin is, as remarked, still obscure.[5] In sum, 'Rajput' is a generic name for a group of related clans all of whose members share the same caste.

As members of a warrior caste, it was their divine duty, or *dharma* to fight. It seems they took to heart the passage in the *Bhagavad Gita*, where Krishna persuades the reluctant Arjuna that, as a warrior, the only honourable occupation for him is warfare:

> Think thou also of thy duty and do not waver. There is no greater good for a warrior than to fight in a righteous war. (2.31)[6]

Bravery was encouraged and fear of death reduced, perhaps, by belief in immediate reincarnation:

> As a man leaves an old garment and puts on one that is new, the Spirit leaves his mortal body and then puts on one that is new. (2.22)

For those soldiers of a less philosophical turn of mind there was a more practical method of reducing the fear of death – as the seventeenth-century Italian vagrant, Niccolao Manucci, observes:

> They all eat opium, and on the day of battle they swallow a double dose. They also give some to their horses to enable them to endure fatigue.[7]

The opium was meant to render the warrior insensible to danger, and so induce the reckless – indeed, sometimes insane – bravery for which the Rajputs became famous. In moments of greatest adversity, such as when besieged and with no chance of avoiding defeat, they employed their most dire methods, as Babur found when he made the final assault on Chanderi on 29 January, 1528:

> they had taken the resolve of those who give up a place as lost; they put their ladies and beauties to death, then, looking themselves to die, came naked out to fight . . .[8]

The women were put to death by burning, a rite known as *jauhar*: a sort of mass *sati* of the widows-elect, before their men went out to die fighting. Commitment to warfare is central to the culture of the Rajputs; their art is a product of a feudal society with a military aristocracy.

The four earliest Rajput clans, those associated with the fire-pit legend, are the Chauhan (or Chahamana), Solanki (Chaulukya), Parihar (Pratihara) and Pawar (Paramara). These clans were in control of the Deccan and Malwa regions from the

sixth century. Other clans which emerged slightly later include the Guhilots (subsequently called Sisodias), who made their capital at Nagda in the seventh century and later at Chitor; the Chandels, who made their capital at Khajuraho in the tenth century and were responsible for its celebrated temples; and the Tomars, who controlled Delhi in the eleventh century.

In the period between the death of Harsha (647 AD) and the taking of Delhi by Muhammad Ghuri (1192), all of these clans between them controlled most of western and central India, undisputed except by each other; earlier Muslim incursions, such as the partial conquest of Sind (712 AD) and the invasions by Mahmud of Ghazni into the Punjab (frequently between 1001 and 1025), had affected areas much further west, areas now in Pakistan. But when the Chauhan, Prithviraj III of Ajmer and Delhi, who had relieved the Tomars of control of Delhi, was in turn relieved of it by Muhammad Ghuri, a new element entered Rajput history. Muhammad Ghuri himself returned across the Hindu Khush, but he left behind a deputy, Kutb-ud-din Aibak, who established the first Muslim dynasty of Delhi; from then on the Rajputs had the growth of Islam as well as each other to contend with.

For intermarriage between the Rajput clans did not prevent intestine warfare. It is sometimes suggested that had they been less divided amongst themselves, their resistance to Islam would have been more effective,[9] but this theory is doubtful: on some occasions, like the battle against Babur at Khanua, they made concerted but still unsuccessful efforts. Furthermore the great bravery of the Rajput soldiery was often inadequately directed and so was wasted against the usually superior tactics of forces under Muslim generalship.

An effect which intermarriage between the clans did have, together with family feuds within single clans, was to cause mutations of the clans. By the time of Babur's invasion of India, in 1526, the four allegedly original Rajput clans were all but extinct and in their place were newer clans, descended from the old and including notably the Sisodias, Kachwahas, Bhattis, Rathors, Harachauhans, Tomars and Bundelas.

Another change was the increasing occupation of the region roughly corresponding to the modern state Rajasthan, a region which the Rajputs took over from indigenous tribals such as Bhils and Minas [1]. The Guhilots (Sisodias), as already mentioned, controlled Nagda, in the south of this region, in the seventh century, and in the eighth succeeded a Mori Rajput dynasty at nearby Chitor;[10] the Kachwahas took control of the north-east part of the region (the nucleus of the later state of Amber) in 967 AD;[11] the Bhattis migrated to the western desert early in the eleventh century and founded Jaisalmer in 1156; the Rathors took the central district of Pali (near their later capital, Jodhpur) in 1212; and the Harachauhans took Bundi, in the south-east, from the Minas in 1342 and detached Kota two generations later. A junior branch of the Sisodias took Dungarpur, in the far south, from the Bhils in the fourteenth century, and the senior branch founded Udaipur in the mid-sixteenth; a breakaway faction of the Rathors settled in Bikaner in the north of the region in 1485; and the Kachwahas moved to Jaipur in 1727.[12] Further east, on the borders of modern Rajasthan, the Tomars took Gwalior from the Muslims in 1398, and the Bundelas founded Orchha in 1501 and detached Datia as an independent state in 1626.

The Mughal Emperors had volatile relations with the Rajputs. After the initial resistance, the Mughals soon gained suzerainty: most of the Rajput states submitted to Mughal supremacy during the reign of Akbar (1556–1605), and throughout the remainder of the Mughal period they collectively formed a *suba* or province of the empire. However, they were left with a considerable degree of internal autonomy, as this made the Rajput rulers less inclined to rebel and better disposed to assist the emperor, by serving as military commanders in the imperial forces or as gover-

nors of the empire's remoter provinces. Muslim invasion of India had never been accompanied by forced mass conversion and the Mughals were, if anything, even more tolerant than their predecessors. Granted this religious freedom, the Rajputs saw the empire as an enterprise with which they could cooperate, as a force for stability. For their services to it, they were rewarded with titles, privileges and land; and many of the emperors married Rajput princesses to encourage fealty.

When one or more of the Rajput clans rebelled – which they still did frequently – the Mughals played them off against each other; for example, by offering portions of the rebels' land to those who helped suppress the rebellion. Control of the Rajput states, maintained only with difficulty, was important to the Mughals because the Rajput homelands lay between the Mughal capitals and the coastal ports of Gujarat – the gateways to trade with the rest of the Islamic world.

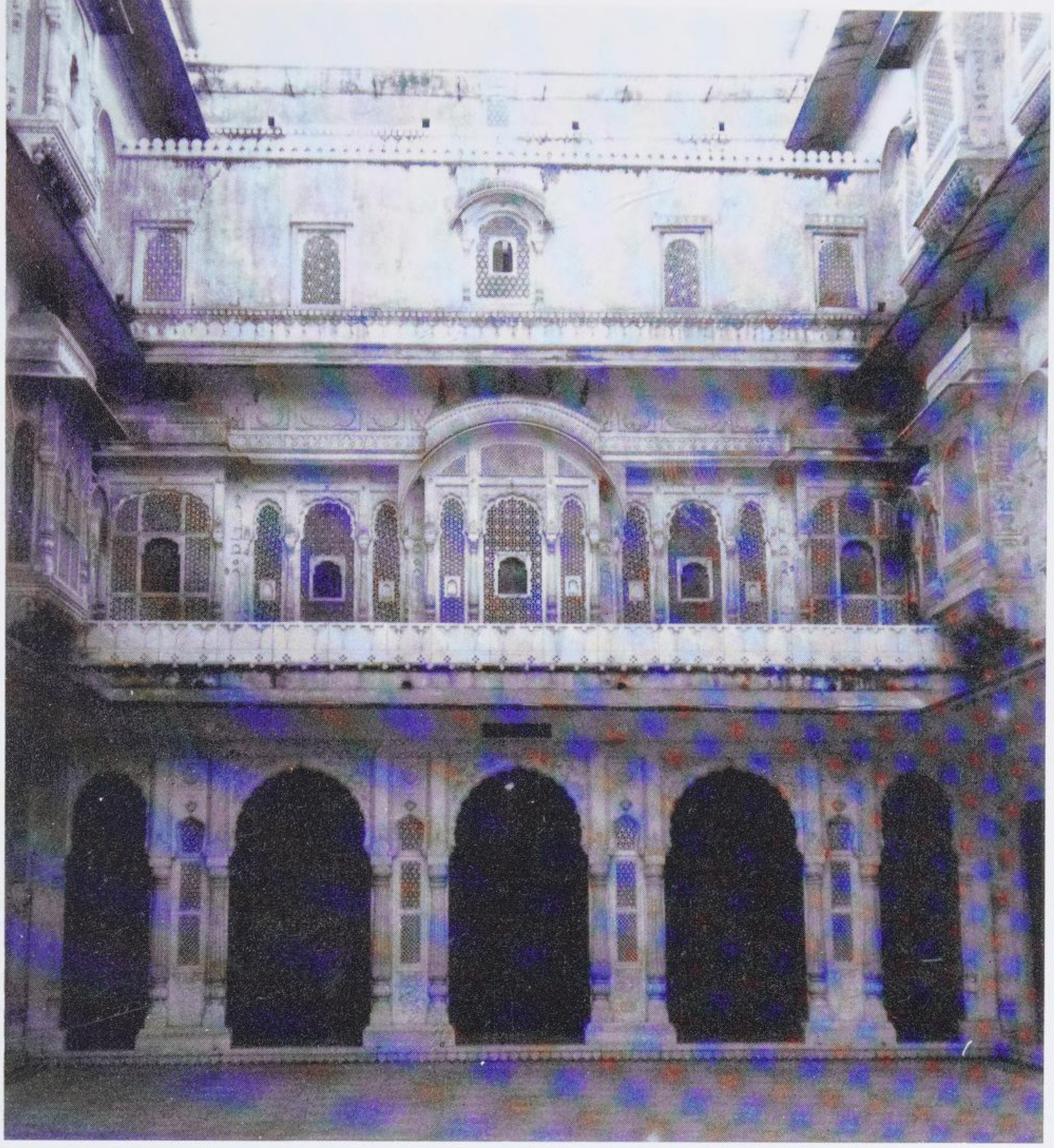
The policy of employing the Rajputs to fight the imperial campaigns had been initiated by earlier Delhi sultans but was most successfully and extensively adopted by Akbar; it was effectively ended by Aurangzeb who objected to the Rajputs as heathens. The decline of the Mughal Empire – in some part due to this shortsightedness of Aurangzeb who thus lost his most powerful allies – might have provided the opportunity for another period of Rajput domination, and indeed the Rajputs did briefly, in the mid-eighteenth century, appear on the brink of power such as they had exercised before the Muslim conquest. But they were soon eclipsed by younger forces: first the Mahrattas and then the British. They made treaties with the British, by which the Rajputs undertook to keep the peace and recognized Britain's suzerainty and right to intervene in internal affairs. In return, the British guaranteed the borders and succession of each of the Rajput states. The clans which existed in the Mughal period have mostly survived, despite fractures and changes of address, through the British period to the present day. The Rajput states, however, were dissolved and integrated into the Indian union in the years following 1947.

2. The Rajput school: types of building

Despite their time-consuming preoccupation with war, the Rajputs, at all periods of their history, have been notable patrons of art, and among the finest examples of this art are the palaces built for the security, residence and leisure of the rajas and their women and courts. The present study begins with the oldest of those still surviving, and continues up to (but excludes) those which follow the abrupt change in the methods and aims of Rajput palace architecture occasioned by the ascendancy of the British in India. The period thus covered – the mid-fifteenth to the mid-eighteenth centuries – corresponds to the period of Mughal supremacy in India and almost a century before.

The palaces of this period together show the development of a distinct architectural style of great sophistication and imaginative invention. They are concentrated, like the Rajput people, in the western and central parts of northern India, in an area now covered by the new state Rajasthan and a part of the new state Madhya Pradesh. They are to be found chiefly in the places which served as the Rajput capitals [1], and these range from the ancient fortresses of Chitor and Gwalior to the comparatively new town of Jaipur. The palaces at Bharatpur and Dig, though built under Jat rather than Rajput patronage, are also included in this study, because stylistically they seem to belong to the same architectural tradition.

The palaces are not all of the same type. Most of the Rajput cities contain one palace which is the largest and principal, and which served as the main residence of the raja and at least some of his wives and courtiers. It is usually divided strictly into two parts: the women's quarters – the *zenana* or *rawala* – and the men's quarters



2. Bikaner Palace; the west range of Anup Mahal Chowk (1669–98)

– the *mardana*. The *zenana* has a separate entrance and was closed to all but its inhabitants and a select group of men. Often it is divided into separate apartments, so that each queen had a private suite of rooms and could choose whether to communicate with her neighbours. The conditions of *purdah* dictated the presence of *jalis* or screens across the windows [2]; these are finely carved stone lattices through which the inmates of the *zenana* could glimpse the outside world or events taking place in the courtyards of the palace without being seen themselves.

The men's quarters – the *mardana* – are divided into rooms intended for the conducting of state affairs and the private apartments of the raja. The former include, most importantly, the *diwan-i-am* or hall of public audience [3], where the raja met distinguished visitors or his own subjects. The complementary *diwan-i-khas* or hall of private audience, where he conferred with his ministers, is more often contained in the private apartments. The private rooms also include a *chitra shali* (picture gallery), a bedroom (often decorated with inlaid mirror-work and therefore called a *sheesh mahal* [*xvi*]) and a temple. The public area usually also includes a *sileh khana* (armoury), a *daulat khana* (treasury), other offices and copious store rooms; sometimes it includes barracks and stables. The *mardana* is usually the more splendid part of the palace.

The courtly life of the palaces is depicted in contemporary miniature paintings [4, 234]. These rarely depict specific buildings – usually they have some generalized

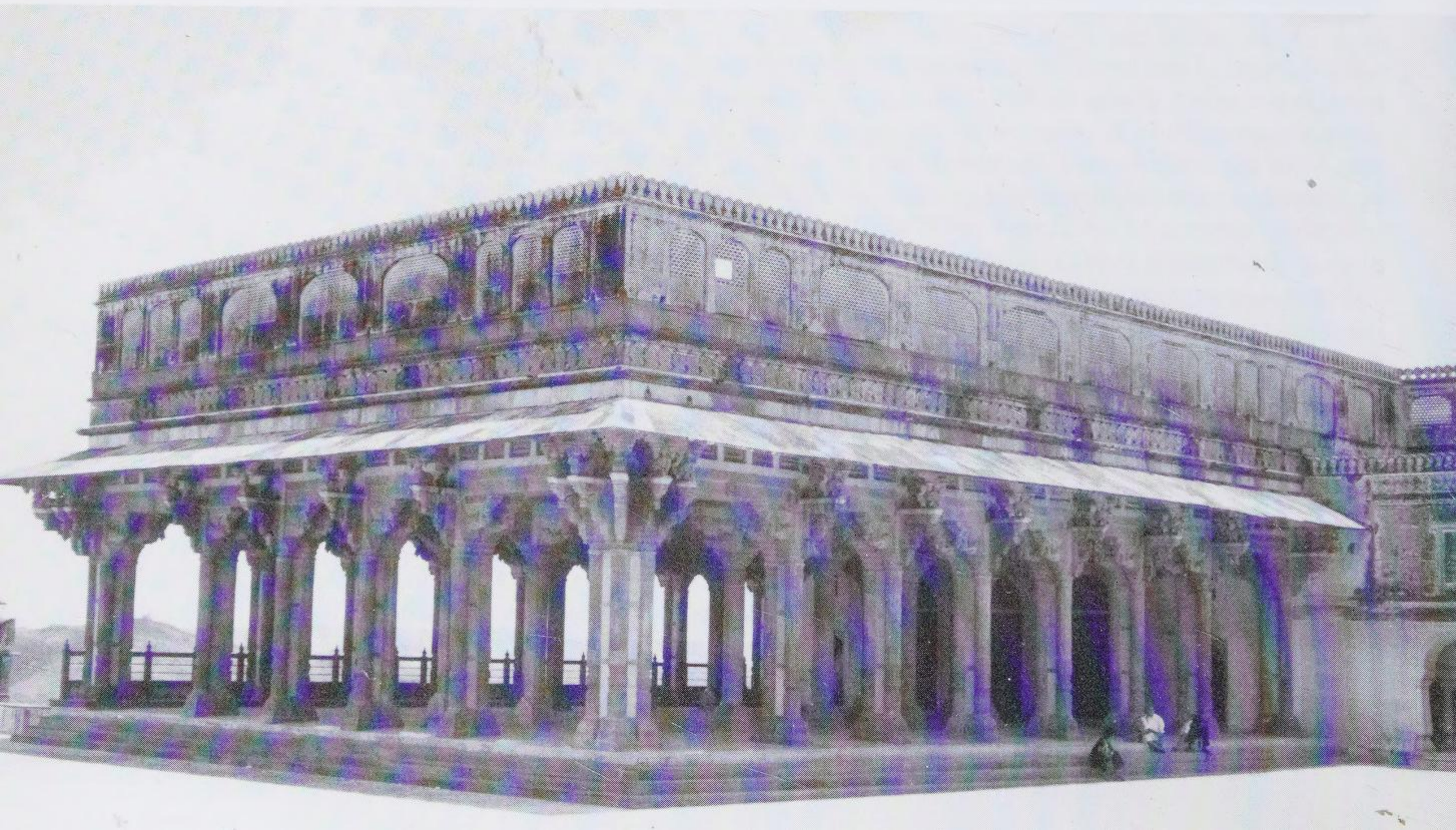
4 (facing). Maharana Jagat Singh II watching a *Rasalila* in the Udaipur palace (Udaipur School, c. 1736)

architectural background – but they give us a clear idea of how the palaces were furnished and used. For example, we can see from them that there was a very extensive use of soft furnishings and the minimum of solid furniture. Rich carpets were piled on the floor with no concern about clashing of colours or obscuring of designs; other carpets were thrown over window sills; people sat either on cushions and bolsters on the floor or on low broad beds; brightly coloured draperies were hung in doorways and windows and often rolled up and held with cords; more drapery was swagged under eaves; and embroidered canopies supported on poles served to extend the living space into the open courtyards.

The courtyards were used for various activities. A public courtyard might be used in place of the *diwan-i-am* for *darbars*, or royal audiences, which were occasions involving splendid pageantry. Any courtyard might serve as the setting for entertainments such as a *nautch* (a performance by dancers) or for the celebration of some religious festivals – the playing of Holi by royalty is a common theme of miniature paintings. The highest courtyards and terraces were used as places to sleep during the hot weather. In the Indian climate, architecture's role as shelter is less important; shelter from sun and rain are certainly required, but not shelter from the cold. Reflecting this, even covered spaces in the palaces tend not to be fully enclosed, and the distinction between interior and exterior space can be much less marked than in buildings designed for colder climates.

The absence of the need for enclosure means, therefore, that the shape and size of a room may be less defined; and this less defined space may serve a less defined function. Though the public and ceremonial apartments serve specific functions, others in both *zenana* and *mardana* have no single, established function; they are adaptable spaces which a quick change in the light furnishings could transform from, say, a dining room into a bedroom. A private area of the palace therefore presents not a room for each of many activities, but a succession of spaces each of which could be put to any use; and if they are many in number this is only for the sake of variety. Reflecting this versatility, the rooms of the private apartments tend to be named after their builders rather than, as in European buildings, according to some function.

3. Amber Palace; the Diwan-i-Am (1623–7)



5. Jodhpur Fort (begun 1459), showing (top right) the palace apartments

The private rooms tend also to be small, suggesting small assemblies of people – larger gatherings could be held in the courtyards, as described – and the intimate scale of the private rooms contrasts with the often imposing grandeur of the public apartments. The palace's many floors are sometimes connected by ramps rather than staircases, so that the royalty could more easily be carried in litters, and the various apartments are connected by narrow corridors, in order to reduce an insurgent enemy force to single file and to restrict its use of weapons.

As this last design feature suggests, the principal palaces also served as retreats against attack; they are defended by fortified walls and gates. Some of them are consequently known as 'the *garh* palace' (i.e. fort-palace) and this appellation will serve well for them all. Almost invariably there are defences contiguous with the palace, so that fort and palace form a single structure; often, in addition, this fortified palace is contained within a further fortress. The four greatest Rajput fortresses, each built on a high hill which rises abruptly from a surrounding plain, are those of Chitor, Gwalior, Jodhpur [5] and Jaisalmer[*xiv*]. The *garh* palaces of Orchha, Bikaner, Kota and Bharatpur are also contained within forts. The remainder of the *garh* palaces have, like the others, fortifications as integral parts of their structure, but they are not contained within further forts; however, in most of these cases there is a separate fort, next to or above the *garh* palace, which serves as a final retreat – this is the arrangement in Amber, Bundi, Dungarpur, Jaipur and Dig.

The Rajput *garh* palaces had also a symbolic function which rivalled their function as accommodation and retreat. They served as expressions or evidence of power, and became symbols of political rivalry in much the same way as the English country house, as described by Mark Girouard.[13] Girouard tells us that Houghton, built by Robert Walpole from 1721,

> became a source of bitter envy to his brother-in-law and neighbour, Lord Townshend, who had been a much greater man than Walpole, and had put him on the way to success.[14]

Similarly, the Emperor Jahangir was reportedly enraged to hear of the magnificence of the *diwan-i-am* built by his vassal Mirza Raja Jai Singh at Amber, and Jai Singh

was obliged to obscure the building's beauties in order to forestall a punitive raid.[15] A Rajput palace was a symbol of a dynasty, and each raja sought to outdo his neighbours and his predecessors in the splendour of his building projects.

In many cases, the raja spent only a limited amount of time in his *garh* palace – a circumstance which enhanced its function as symbol as opposed to accommodation (and one which again finds a parallel in the English country house[16]). Typically, a Rajput raja spent most of the year fighting campaigns for the Mughal in some distant part of the empire, and much of his remaining time at the Mughal court in Agra or Delhi. Even of the time that he was able to spend in his own state, some was spent in minor palaces or retreats. As a result, the majority of the permanent residents of a Rajput palace were women, and in some of the palaces – notably at Jodhpur – the *zenana* portion is more extensive than the *mardana*.

Other sorts of palace, apart from a *garh* palace, which might be found in a Rajput city include a further and separate *zenana*, for the accommodation of a favourite wife or of concubines; a house for the heir apparent; and pleasure palaces for shooting expeditions or picnics. The pleasure palaces are often set by or on water [*xiii*], or in gardens. Some of them were used as summer retreats from the hot weather, but only in times of peace – they are usually not fortified. Often, in fact, they do not even consist of enclosed buildings but rather of a sequence of open pavilions, linked by gardens and ornamental pools. The picnics and shooting expeditions could be lavish affairs lasting several days, and the pleasure palaces, though small, made no compromises concerning comfort and elegance.

The Rajput school is further represented by *havelis* – town courtyard houses [6], each of which was inhabited by the family of a nobleman or rich merchant, or by the branches of a joint family, or by several families of tradesmen. *Devals* or memorial *chattris* are pavilions which mark the sites of royal funeral pyres [7]. Dams and *ghats* (flights of broad steps leading into water) were built under royal patronage in efforts to protect the common populace from drought and to give them places at which to wash; they are often adorned with pavilions which provide shade [8]. Some of the buildings of these types, and especially the *havelis*, exemplify the same architectural style as the palaces. They are, also like the palaces, all examples of

6. Jaipur; a *haveli* to the east of Sireh Deori Bazaar (c. 1730)

7. *Devals* at Bada Bagh, outside Jaisalmer

8. A pavilion on the *bund* at Rajsamand, north of Udaipur (1662–76)

secular architecture; that is to say, buildings whose uses are not expressly connected with religious worship. There are, of course, examples of a religious architectural tradition contemporary with them, but these are excluded from the present study, being buildings of a quite different architectural type [138]. The buildings of the rural peasantry are excluded for the same reason.

The architects and craftsmen responsible for all these buildings were, for the most part, anonymous. At least from the Maurya period (320–185 BC) the *silpi* were organized in guilds (*sreni*) and, as members of an artisan caste, inherited their skills.[17] Babur confirms that this arrangement persisted in the late medieval period:

> Another good thing in Hindustan is that it has unnumbered and endless workmen of every kind. There is a fixed caste for every sort of work and for every thing, which has done that work or that thing from father to son till now.[18]

It is often said of Indian art generally that there were no individual artists seeking self-expression, as in the West;[19] but in the present context this common view requires some qualification. Not all of the architects were anonymous; we know the names of some from inscriptions. For example, the *Rajaprasasti*, inscribed on the *ghat* at Rajsamand near Udaipur, lists the names of the chief *gajadharas* (literally, 'holder of the yardstick') who were responsible for the construction of the *ghat*, and some of these names appear also in inscriptions in the Udaipur *garh* palace.[20] And so although, certainly, a Rajput palace was not, like a contemporary European palace, the creation of an individual designer, but rather of a co-operative group of craftsmen, still there were clearly some members of that group who were at least *primus inter pares*. Furthermore, there are regional differences which suggest that the chief architects in each city, either singly or between them, developed discernibly individual interpretations of the style.

Because of the scarcity of surviving design drawings it is difficult to assess the working methods of these craftsmen. The few drawings which have survived are almost exclusively plans rather than elevations and this suggests that the method was based on planning; that the plan was fixed first, and the elevations were worked out as building was in progress. The evidence afforded by the buildings themselves is inconsistent. A few of the palaces appear to be executions of unique, predetermined designs, but the great majority appear more spontaneous, the results of particular adaptations of established general patterns of procedure.

While investigating the survivors of the guild system early in this century, Gordon Sanderson remarked, 'They don't believe in plans'.[21] In the light of surviving drawings this remark cannot be applied to the earlier period, but it does suggest continuity of method with that period in so far as it suggests a method based on improvisation from learned formulae.

3. The Rajput style: a sketch history

The great writers on Indian architecture, including James Fergusson (1876), Ananda K. Coomaraswamy (1927) and Percy Brown (1942), while mentioning Rajput architecture and recognizing its place amongst the finest examples of secular Hindu architecture, have yet had little to say about it.[22] Some of them – for example, E. B. Havell (1913) – have insisted on the need for a detailed study of the Rajput palaces, but have not gone on to provide it.[23]

Rajput architecture is an anomaly: it is a late Hindu architecture – a Hindu art form dating from what is usually described as the Muslim period. Although when one considers the intricacies of Indian history this situation is seen to be a relatively uncomplicated one, it may nevertheless in part explain why Rajput architecture has received insufficient attention from scholars. Generally Indian art historians have concentrated on early Hindu art or, if their interest is in the later period, on Indo-Islamic art, and so they have tended to overlook late Hindu architecture. The Rajput school is not the only late Hindu architecture – there are also buildings of contemporary Hindu kingdoms in the south of India, such as the palaces of Tirumala Nayak (1623–59) and the palace complex at Vijayanagara (sixteenth century). But the Rajput school is the most highly developed and the wealthiest one; it is also the one that has been most neglected.[24]

The few exceptions to this neglect come from Germany. Oscar Reuther (1925) was the first to publish extensive, high quality photographs and some plans of the major Rajput palaces; but the accompanying text – as Reuther himself insists in his foreword – is more descriptive than analytical: he leaves it to others to draw conclusions.[25] More extensive is the work of the late Professor Hermann Goetz

9. Ajanta; Cave 17, a wall painting illustrating the Vishvantara Jataka (the Palace Love Scene, c. 500AD)

who, in the 1940s and 1950s, wrote many articles on Rajput art and architecture.[26] These provide much valuable information as well as more general argument; but this latter – and especially his appraisal of the Rajput palace style – is here argued against. Furthermore, even collectively his articles form a far from comprehensive account of Rajput art. Goetz's work serves the purpose of drawing attention to a neglected field of research; it properly initiated that research, but does not complete it.

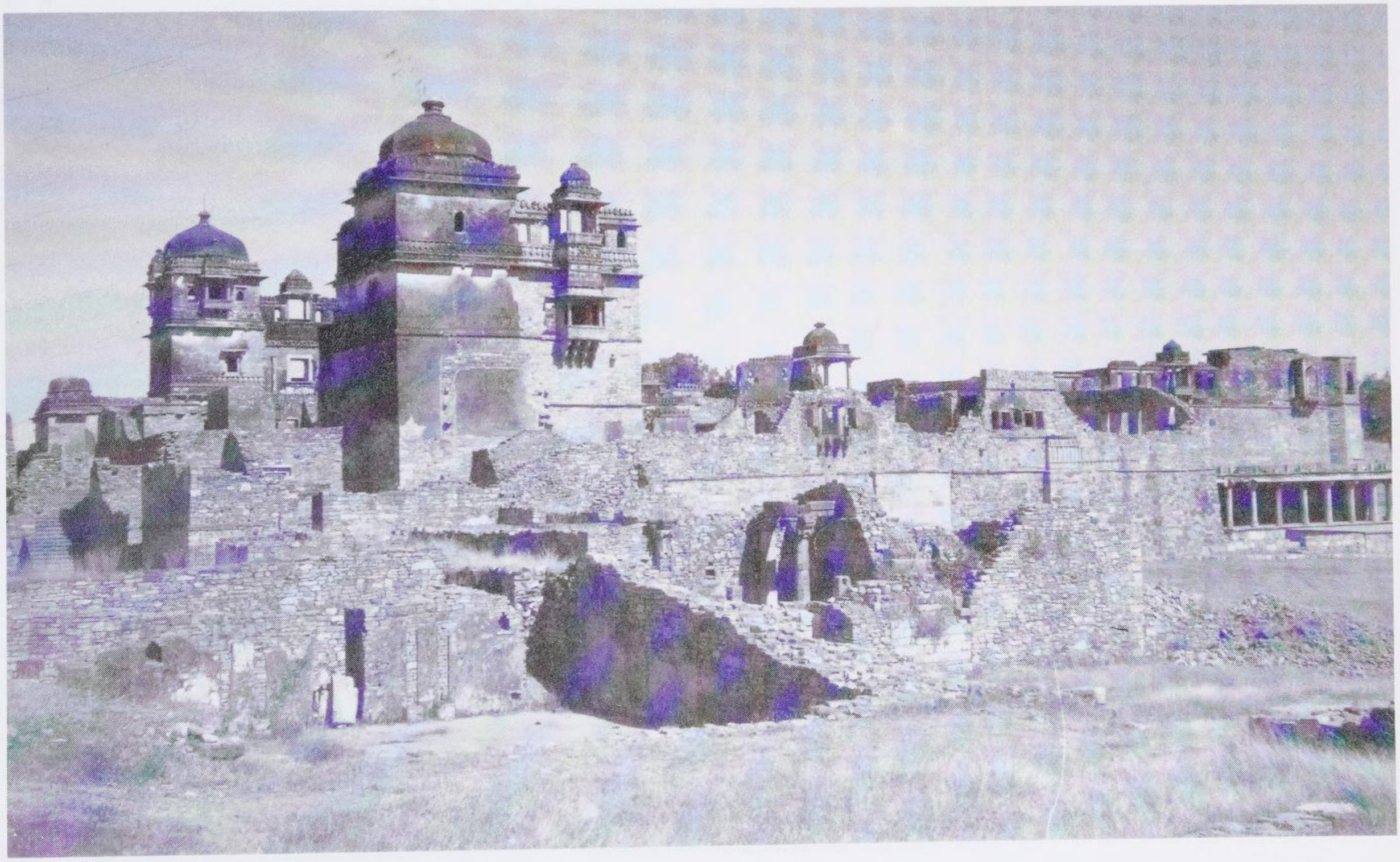
By comparison, much authoritative work has been done on Rajput history, notably by James Tod (1829/32)[27] and more recently by Dasharatha Sharma.[28] Other modern works include gazetteers and local histories, by both Indian and European writers. These last rarely contain analyses of style, and in so far as they do discuss style they tend to repeat a view of Rajput architecture which was proffered by both Percy Brown and Hermann Goetz, and one which could therefore fairly be described as the received view. This view is that because of the Rajput rulers' proximity and subservience to Islamic overlords their buildings inevitably show the overwhelming influence of Indo-Islamic architecture, and especially of its finest phase (with which the maturity of the Rajput school is contemporary) namely, Mughal architecture.[29] The simplicity of this view makes it attractive, but it is necessary to assess its validity aside from its attractiveness. This subject is treated more fully below, but it would be worthwhile here to analyse the premise on which Goetz (but not Brown) bases his view.

This premise is that the Hindus, prior to the Muslim conquest, had had no grand secular architectural tradition of their own; that it was the invading Muslims who introduced grand secular architecture into India, so that when they came to build palaces in the Islamic period, the Hindus imitated Indo-Islamic examples by necessity.[30] The belief that the Hindus had possessed no grand secular architectural tradition

is presumably based on the circumstance that no conspicuous examples of such a tradition are to be found. There is, however, ample evidence to show that the ancient Hindus did build palaces, and we should rather be asking why they have not survived. The evidence for their existence is both literary and archaeological. The palace at Pataliputra of Asoka (third century BC) was described by the ambassador Megasthenes as surpassing the palaces of Susa and Ecbatana; and the pilgrim Fa Hsien, who visited it early in the fifth century AD, calmly explains that it was the work of genii[31] – an attribution which suggests that the palace could stand comparison as a superhuman achievement with the cave sanctuaries, which Fa Hsien also knew.[32] And indeed modern excavation has revealed the remains of an impressive group of buildings.[33] Other palace buildings are represented in the frescoes at Ajanta (c. 500 AD) [9]; the *Kadambari* and *Harshacharita*, both by Bana Bhatta, give accounts of the reign of Harsha (seventh century AD), including descriptions of an extensive *raja bhavan*;[34] a twelfth-century inscription at Chitor, recording a visit by the Chaulukya king Kumar Pal, refers also to the palaces which enhance the beauty of Chitor;[35] and there is yet further evidence, including representations of palaces, in ancient Hindu and Buddhist relief sculpture [21].[36]

The disappearance of these ancient palaces, some account for by suggesting that they were made of wood;[37] however, there is no convincing evidence for this and a more credible explanation is suggested by the Indians' attitude to secular architecture. Though always conscious of their heritage and attaching great importance to building projects, the Hindus have never been conscientious preservers of secular architecture. Each successive ruler of any dynasty felt the need, given the required leisure and resources, to express his personal prestige by building his own palace, and made no effort to maintain those of his predecessors, which were abandoned

10. Chitor; Rana Kumbha's palace, from the south-west (1433–68)



or even destroyed to provide materials or space for the new project. Sometimes whole capitals were moved for reasons of strategy, necessity or prestige, and the old site was left to decay; examples of such moves include the Rathors' move from Mandore to Jodhpur, the Sisodias' move from Chitor to Udaipur and the Kachwahas' move from Amber to Jaipur.

This is perhaps not an exclusively Indian attitude, but in this context it is clearly related to a trait of mind which is characteristically Indian, namely that which is often described as the Indian lack of a sense of history. In the self-repeating cycles of time, dynasties and their palaces decay and are replaced by others; but the Indian mind focuses on the eternal scheme, not the particular events, so that no object is esteemed simply because it is old. This disregard does not include temples: the abodes of the gods, who were of the eternal scheme, were to be likewise eternal; they were preserved at all costs and moved only in extreme circumstances. The abodes of men could be treated with less respect. In the light of this, it is no matter for wonder that the ancient Hindu palaces have not survived.

The oldest surviving Rajput palaces in fact date from the mid-fifteenth century; these are the palace of Rana Kumbha of Chitor (1433–68) [10], which may be a rebuilding of a yet earlier palace, and the palace of Raja Kirtti Singh of Gwalior (1454–79). The latter is one of four palaces built in the citadel of Gwalior between 1454 and 1518: the largest of them is the Man Mandir, built by Raja Man Singh Tomar (1486–1516) [11]; the others are the Gujari Mahal, also by Man Singh, and the now somewhat ruined Vikramaditya Mahal (c. 1510). The palace of Rana Kumbha is one of several hundred monuments in the citadel of Chitor, but the few important palaces date from the period between Kumbha's reign and Akbar's sack of Chitor in 1567. They include the palace of Rana Ratan Singh II (1528–31) and the houses of Patta and Jaimal (both c. 1560). The oldest of the palaces at Orchha, the Ramji Mandir (c. 1530), is also of this period.

In these early palaces, the most characteristic features of Rajput palace architecture are found already fully developed. Each is a complex grouping of small spaces,

11. Gwalior; the east front of the Man Mandir (1486–1516)

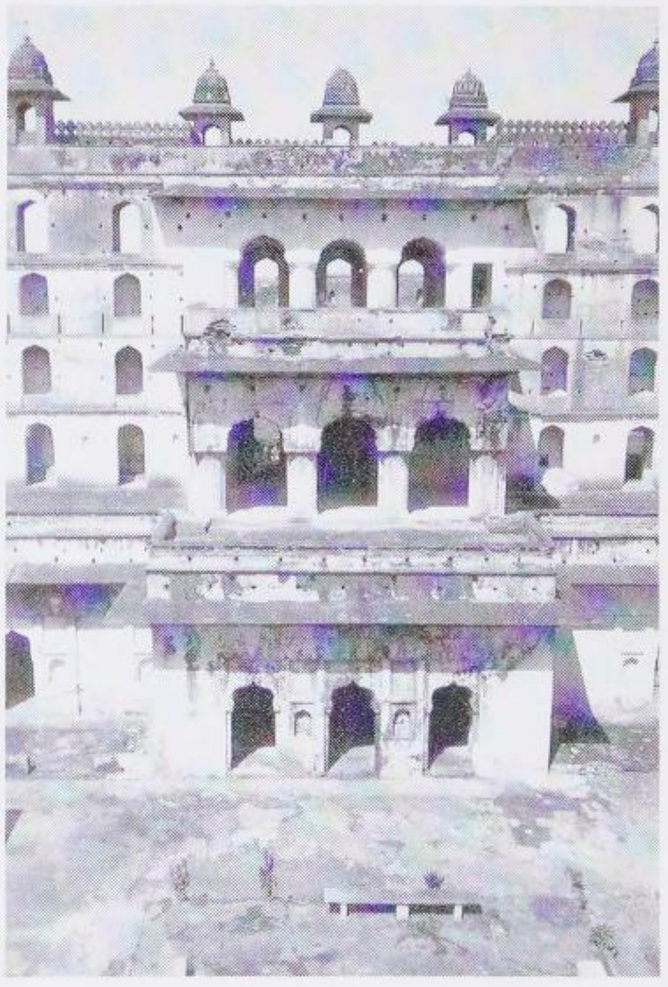
12. Gwalior; an upper court in the Kirtti Mandir (1454–79)

some open and some enclosed; the roofs of cramped apartments form high-level courtyards [12], and the whole assembly is enclosed by a fortified wall. Their columns are commonly square-based with octagonal shafts and corbel capitals: this form is a simplification of the conventional temple column. Other details and decorative motifs include elaborately carved brackets and corbels on gateways and galleries; the *jarokha* or cradle balcony; the *chajja* or deep eave; the *jali* or pierced stone screen; coloured tile decoration; the lotus rosette; and, in the Man Mandir, the first hesitant use of the cusped arch. All of these motifs, with the exception of the coloured tiles, are taken and adapted from Hindu temple architecture and belonged to the Hindu tradition before the Islamic era. Many of the early Rajput palaces, including all of those at Gwalior, were built before the Mughal invasion of India in 1526; their relation to contemporary Muslim buildings at Mandu, Chanderi and Delhi is considered in Chapters Three and Four.

Next come the remainder of the Bundelkhand palaces: the Raj Mandir (late sixteenth century) [13] and the Jahangir Mandir (c. 1605), both at Orchha, and the Govind Mandir (c. 1620) at Datia [*vi*]. The oldest surviving portion of the palace at Amber was built about 1600. These buildings employ much the same vocabulary of motifs as the earliest palaces. They differ from them in their far greater dependence on the arched rather than trabeate system of construction; Hindu craftsmen had long been employing the arcuate technique in buildings which they constructed for Muslim patrons, but it was only in the late sixteenth century that they introduced it wholeheartedly into the palaces they built for Rajput patrons.

The remaining portions of the Amber palace, built in the course of the seventeenth century, and the *garh* palaces of Udaipur, Jaisalmer, Bikaner, Jodhpur, Dungarpur, Bundi and Kota, represent the maturity of the Rajput style. Many of these palaces cannot be assigned to a particular date because they were built slowly and continuously throughout a long period: continual alteration and addition is an important feature of Rajput palace architecture. But though some are of earlier foundation and most have later parts, all of these palaces were built predominantly in the seventeenth and early eighteenth centuries. Thus the palace at Udaipur was begun about

13. Orchha; the north range in the Raj Mandir (1554–91)



14. Udaipur City Palace, from the west (from c. 1567)

1567, after the enforced move from Chitor, and though many of its earliest parts survive, it is nevertheless mostly seventeenth-century [14]; the fort and palace of Jodhpur were begun more than a century earlier, in 1459, but much of the surviving palace complex dates from the early eighteenth century [5]. Also representing the maturity of the Rajput style – apart from these *garh* palaces – are the pleasure palaces, the *havelis, devals* and *ghats* built in or near the same towns.

All of the forms and motifs characteristic of the early phase of the Rajput style were perpetuated in the mature phase, but some were used less commonly as they began to be replaced by new forms. In the later buildings the cusped arch occurs much more extensively [15], and balustered and fluted columns supporting such arches are found more often than the imitation temple columns supporting lintels [12]. Another new feature is the *bangaldar* roof or Bengali curved eave [125]. These forms began to appear in Mughal architecture at about the same time, though only the balustered and fluted columns were a Mughal invention and so indicate a Mughal influence.

The mature phase also saw changes in the applied decoration: wall painting and mosaic techniques were now used more commonly than coloured tiles, and the decoration was greatly proliferated. As before, it was highly colourful, painstakingly elaborate, and often figural and of religious significance. Some of the new kinds of applied decoration also indicate a Mughal influence – in particular the part-floral, part-geometric inlaid designs, and a kind of vault moulding which consists of a web of miniature arch-shaped indents[16].

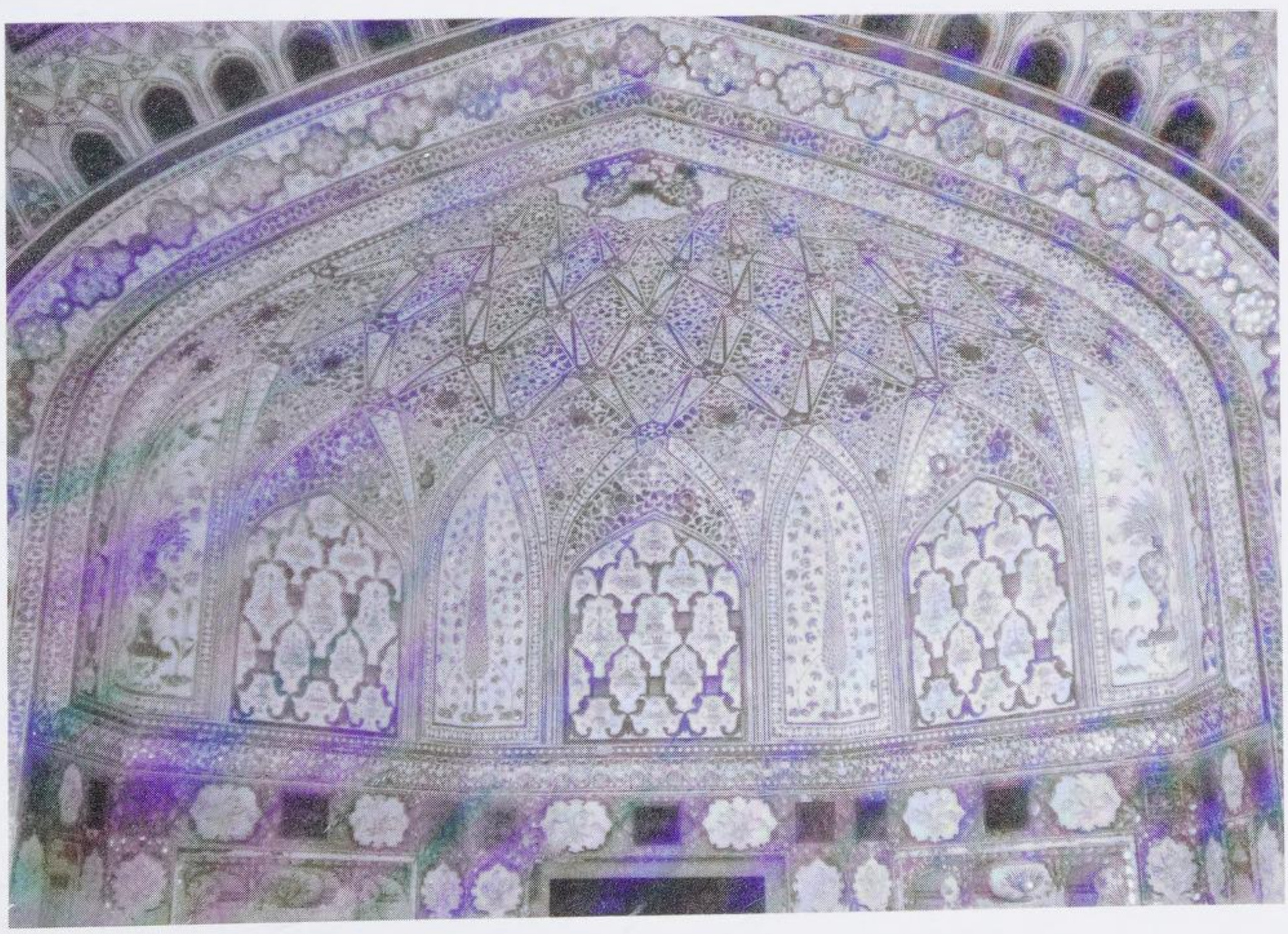
Others have their source in Rajput folk art and would be well described by Coomaraswamy's phrase (intended as a description of Rajput miniature painting): 'an aristocratic folk art'.[38] Some of the palace murals, for example [*x*], represent a refinement of the type of murals found on the outside walls of more modest urban dwellings – a type of which modern examples are still to be seen adorning houses in Udaipur. The use of pieces of mirror in decorative schemes, notably in the *sheesh mahals* [*xvi*],

is found too in Rajasthani embroidery; in the villages even today, mirror discs are incorporated into the otherwise embroidered patterns on wall hangings and girls' skirts. The colour scheme often favoured for the palace interiors is again that of the local embroidery and peasant costume: against a dark red ground, details are highlighted in green or gold. And the lacquered doors and shutters in the palaces, with their paintings of girls and gods, are an adaptation of the Rajasthani peasant woman's jewellery box.

But the most pervasive development in the style during the seventeenth century, and that which characterizes this mature phase, is a certain attenuation of forms which causes it to lose something of its robust, military aspect and acquire instead a more refined and courtly elegance.

The Rajput style entered another phase, and in some senses the phase of its decline, with the foundation of Jaipur in 1727. The palace and city were built between that

15. Bikaner Palace; the Karan Mahal (1631–69)

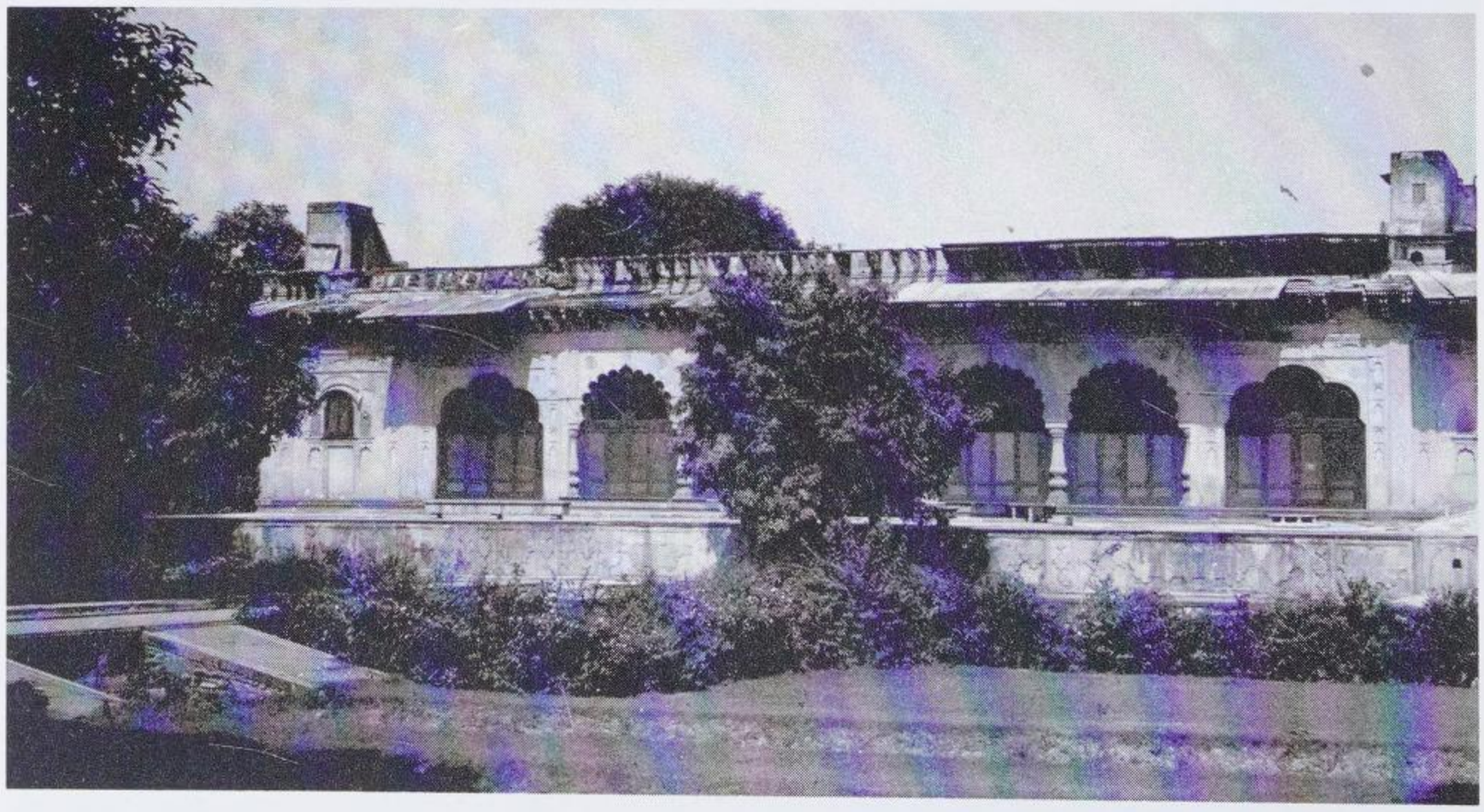


16. Amber Palace; mirror-work in the Jess Mandir (1635–40)

17. Jaipur Palace; the garden front of the Chandra Mahal (c. 1727–30)

date and the middle of the eighteenth century [17]. Also of this period are further additions to the established palaces, and new palaces built by the Jat rajas of Bharatpur: Raja Badan Singh's palaces at Dig (from 1722) and Bharatpur (c. 1733), and Raja Suraj Mal's palace at Dig (c. 1760) [18]. The period is marked by flattened surfaces and dull massing, by the use of inferior materials and a dependence on proliferated motifs, themselves also flattened. There is, too, a greatly increased Mughal influence, particularly on the decorative forms, and a correspondingly more complete abandonment of the archaic Hindu motifs which had been employed in the earliest Rajput buildings (for example, the temple columns and the richly carved brackets). Finally, in parts of the *garh* palace at Jaipur and in Suraj Mal's palace at Dig, a Mughal influence is apparent for the first time in the planning, and on these occasions the style must be said to have lost its independence.

In the later eighteenth century, building continued at most of the Rajput capitals and at newly established cities such as Alwar; but the style had by then lost its vigour and inventiveness. In some exceptional late *havelis* at Jaisalmer – including



18. Dig; the south front of the Nand Bhawan (c. 1760)

Patua ki Haveli (c. 1805) [*xv*] and Salim Singh ki Haveli (c. 1815) – the forms and motifs of the style are multiplied and piled like temple sculpture, encrusting and obscuring the architectural form [138].

In the course of the nineteenth century, the style underwent a number of distinct changes as a result of British and other European influences. The first came from an attempt to inject new life into the flagging style by introducing European architectural details; these were never satisfactorily assimilated, however, and the experiment deposited a coating of Victorian decoration over the apartments of many of the palaces. This and other late developments are reviewed in the concluding chapter of this book. European influence led in the end to a species of palace entirely new in India: large country houses in European or so-called 'Indo-Saracenic' styles. So although the Rajputs flourished into the twentieth century, their traditional architecture did not.

Two

Rajput and Mughal

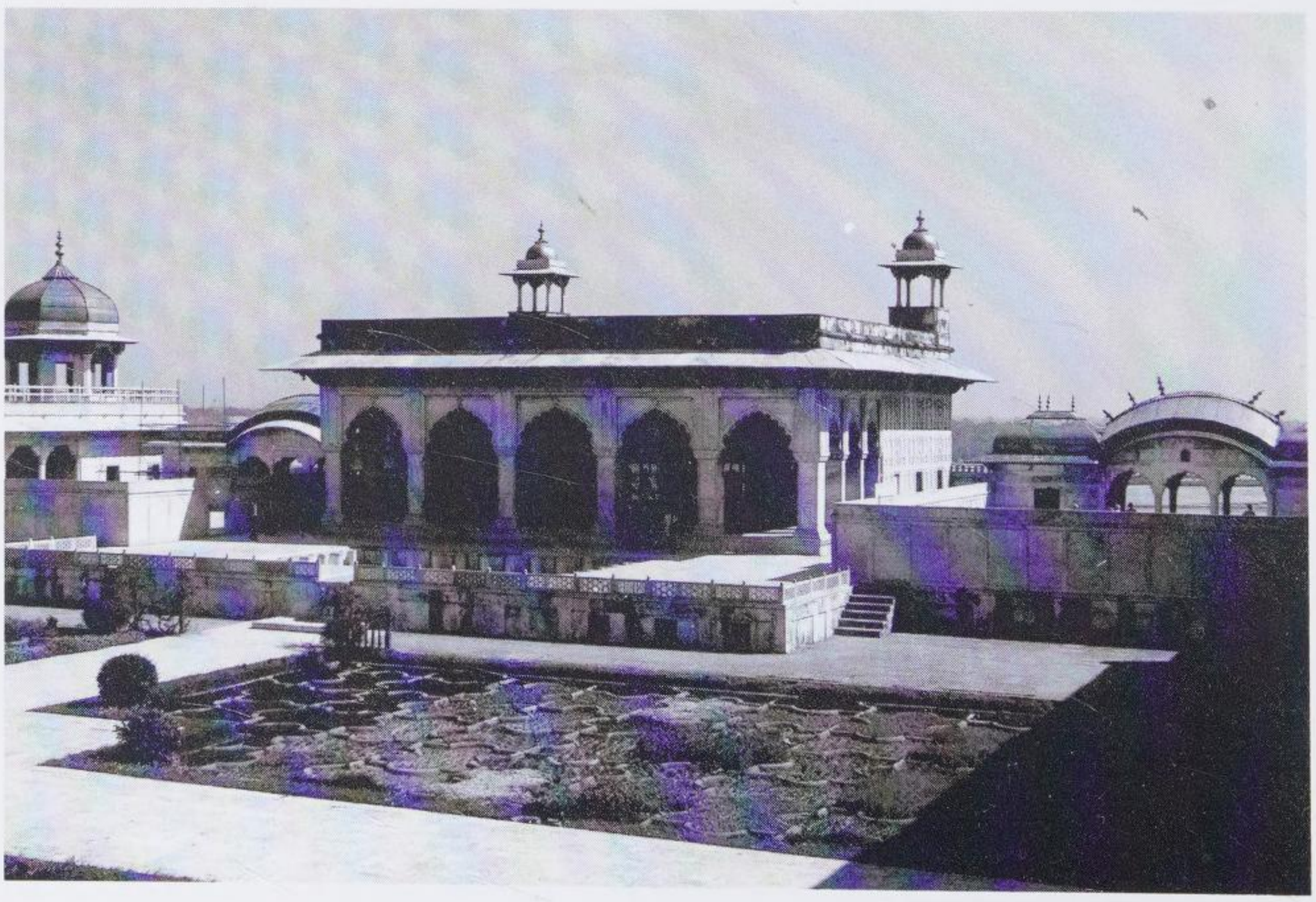
From the preceding sketch history of the Rajput style, it appears that the major contemporary influence was provided by Mughal architecture. It is proposed that an account of the relation between these styles be attempted here, even before a detailed examination of specific palace buildings, because this relation, both in itself and through illuminating the manner in which architectural ideas were disseminated in India, defines also the art historical context of Rajput architecture.

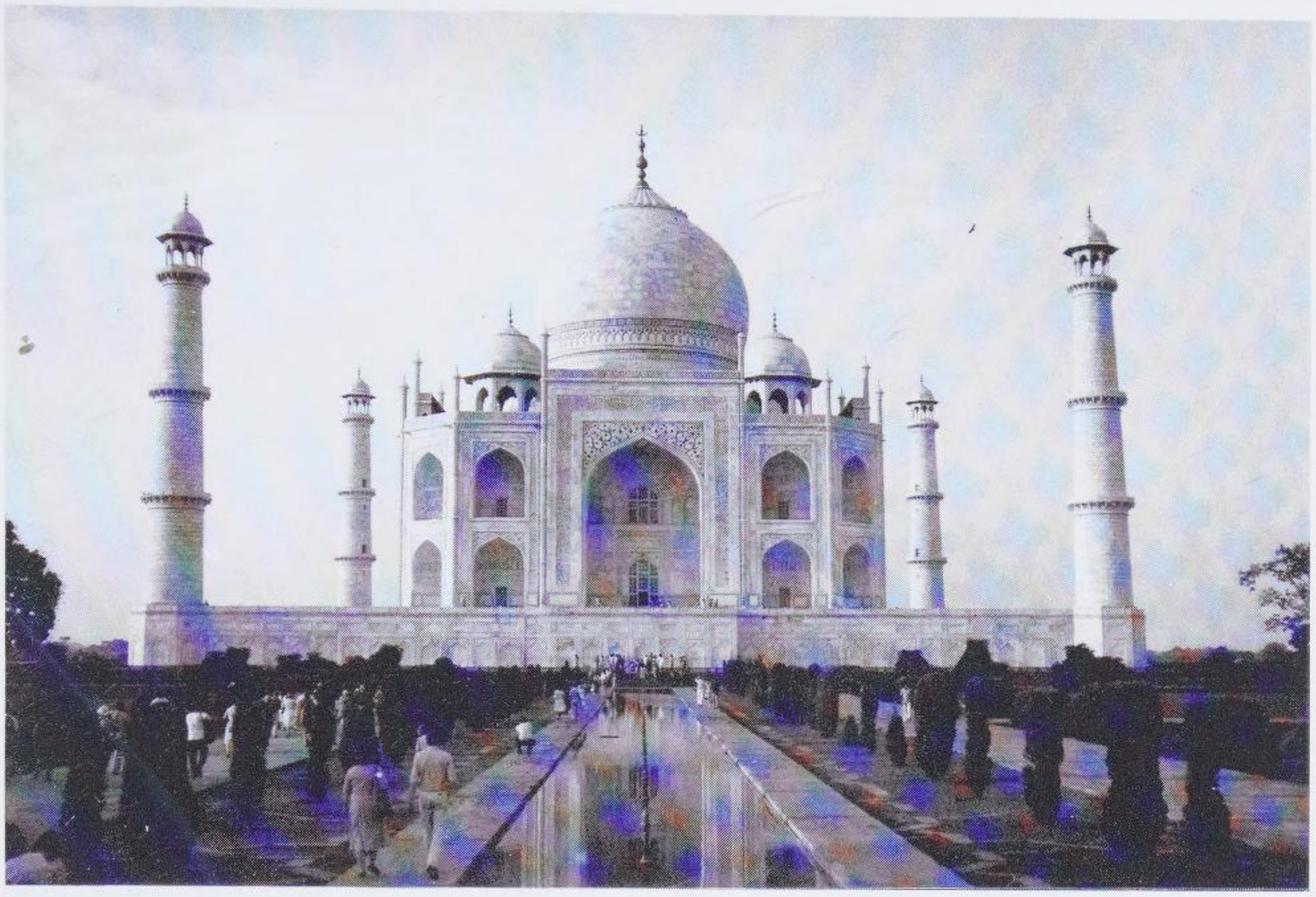
1. Counterpoint in the Indian tradition

The Mughal Emperors built extensively in northern India but justly their most famous monuments are those built in Agra and Fatehpur Sikri during the reign of Akbar (1556–1605), and in Agra and Delhi in the reign of Shah Jahan (1627–58) [19]. Other centres which benefited from the Mughals' building ambitions include Allahabad, Lahore and Srinagar. The Mughal school was vigorous, inventive and extravagantly funded; it produced some of India's most magnificent monuments and also, of course, her single most famous [20].

After a shaky start, Mughal authority matured into the firmest imperial power

19. Agra Red Fort; the Anguri Bagh (1627–38)





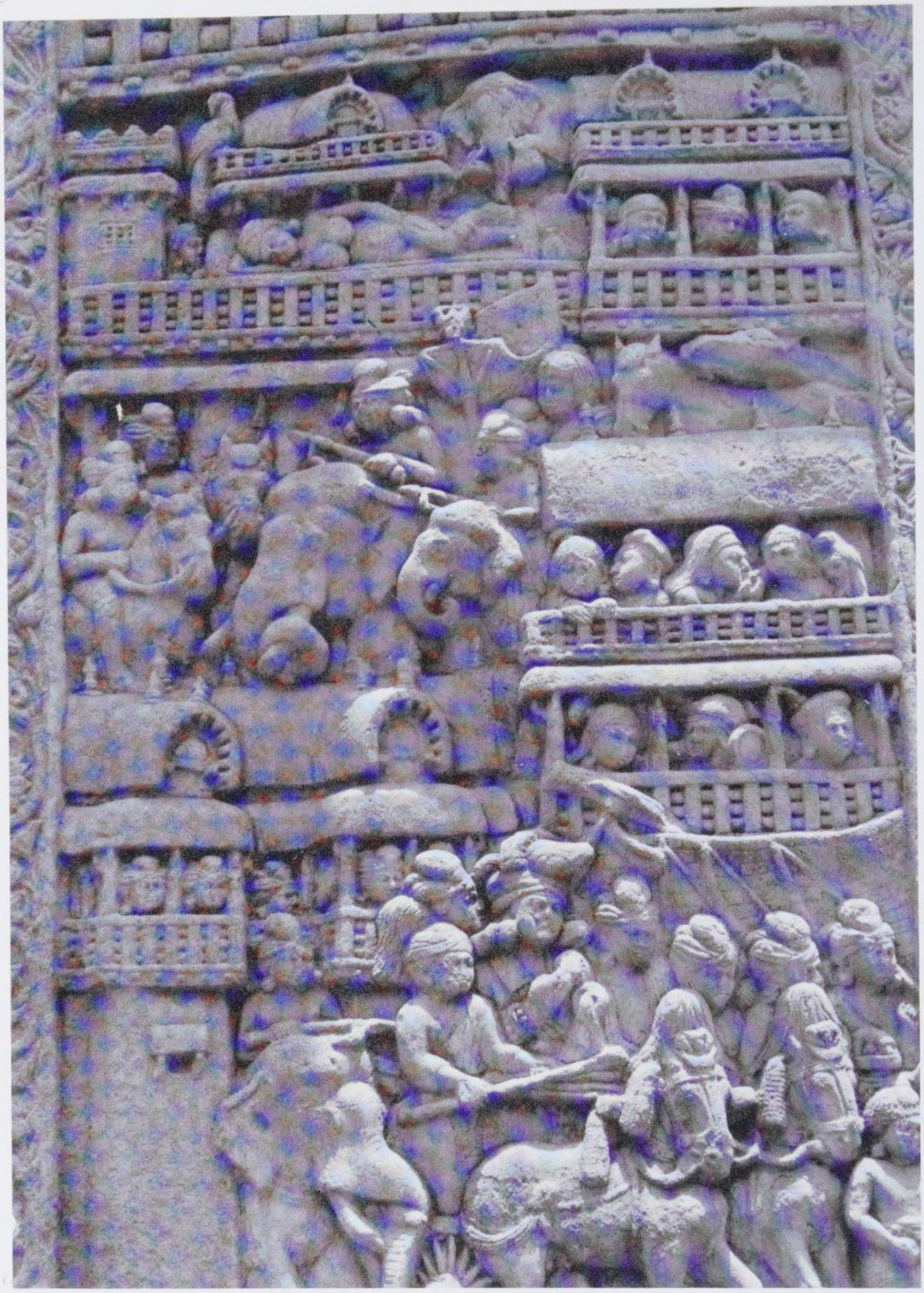
20. Agra; the Taj Mahal (1632–48)

India had then seen, with the Mughal court entirely dominating north Indian polity. It exerted, too, a forceful cultural influence, especially in the fields of painting and costume, in which the Mughals imported traditions from Persia. It would not therefore be surprising if the same were true of the architecture of the period, and indeed many features of the palaces of the Rajput lieutenants are common to the palaces of their Mughal masters. These common features include aspects of the general arrangement, such as the palace's division into *mardana* and *zenana*; methods of construction, such as the combination of trabeate and arcuate techniques; specific forms and details, such as the cusped arch and *bangaldar* roof [125]; types of applied decoration, such as mirror-work and mural painting; and of course materials, such as the local sandstones and *chunam* or polished plaster. Some writers see in these correspondences what they expect and look to find; whether there is such a simple and single explanation for them is now to be examined more carefully.

An assessment of the relation between the Rajput and Mughal styles must involve an appreciation of each in its context, for neither is a rootless plant. Rajput palace architecture is but one manifestation of the Hindu tradition, albeit the major north Indian secular manifestation to have survived. Mughal architecture is only one phase of Indo-Islamic architecture – by 'Indo-Islamic' is meant 'built under the patronage of Muslims in India' – and of that there had been many and various phases since the firm establishment of Muslim power on Indian soil in 1192. The relation between Rajput and Mughal architecture must be seen in the wider context of the relation between the traditions which they represent.

The successive waves of Muslim invasion of India had important repercussions for the Hindu architectural tradition. There was perhaps little impact on temple architecture since its forms were bound by Brahmanical canon. The effect on secular architecture is hard to assess as so little survives from the pre-Islamic period; but evidently it is to the Muslims that is owed the common adoption of the true arch, that is, the arch constructed of radiating voussoirs.

There are some who would deny that the Muslims introduced the true arch into India, insisting that the ancient Hindu craftsmen perfectly understood its principles,



21. Maya's dream and the return to Kapilavastu: a relief carving on the eastern *torana* of the Sanchi stupa (1st century BC)

but chose to employ it only very rarely.[1] Coomaraswamy cites some examples of pre-Muslim true arches.[2] Psychologically, too, this is plausible: the Hindus had adopted the square as the essential element of their architecture (perhaps as a symbol of stability); the arch more closely resembles the circle (which often, as in Buddhist iconography, symbolizes motion) and so might have been considered antipathic to the fundamental principles of Hindu architecture. Furthermore, even after the Muslim conquest the adoption of the true arch was slow: it is shown above that it was not accepted fully in Rajput architecture until the late sixteenth century, suggesting again some reluctance to use it on the part of Hindu craftsmen. A Hindu antipathy to the arch therefore seems probable. Even so, the argument that the

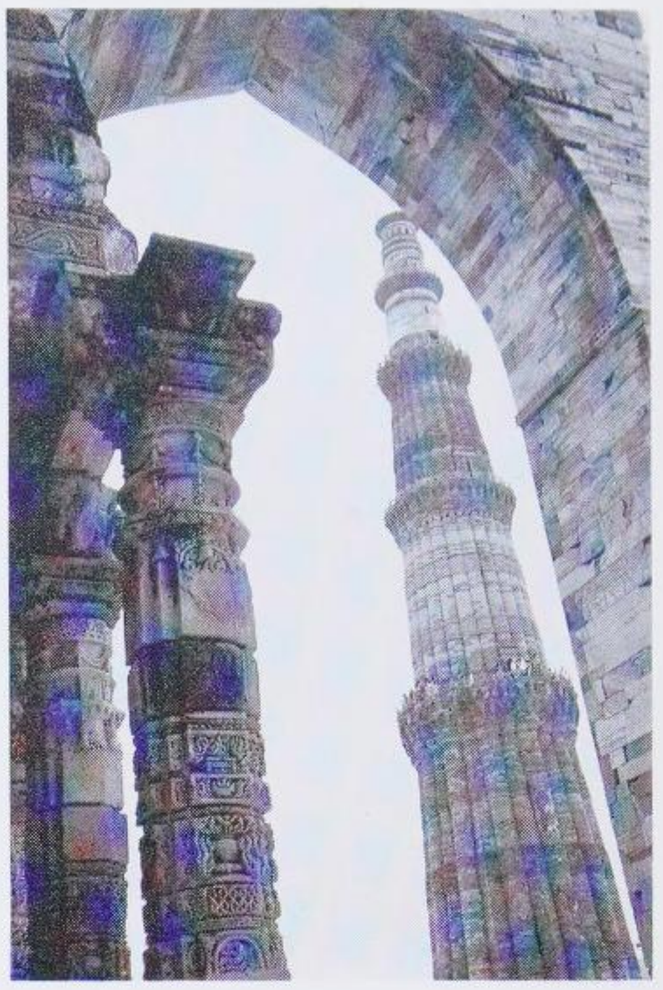
early Hindu craftsmen could have employed it if they had wished, is sophistic. It remains undeniable that the true arch, even if only gradually, came to replace the traditional Hindu trabeate system in secular architecture, and that this change occurred only after the Muslim conquest.

In ancient relief sculptures, such as those on the Buddhist stupas at Barhut and Sanchi (second and first centuries BC) [21] no distinction is apparent between religious and secular buildings; they are characterized by the same trabeate and over-solid construction. The introduction in secular buildings of the true arch meant a decisive change in this character, for with the arch came a leaner, more economical construction; an emphasis on space rather than on mass.

No less radical than the influence exerted by the Islamic tradition was that exerted on it in turn. When they began to build in India, the Muslims could hardly have avoided the influence of the flourishing and powerful Hindu tradition, but they made no effort to avoid it. In the initial phase of Indo-Islamic building, the Muslims used fragments of destroyed Hindu buildings with which to build the first mosques [22]. Later, they used the local materials and adopted Hindu forms which had been developed to counter the effects of the Indian climate, such as the *chajja* – a sloping projection in the place of an eave, which protects the building from sunlight and heavy rain [12].

More importantly, at all periods they employed Hindu craftsmen and allowed them to introduce the Hindu forms and decorative motifs which the craftsmen were best practised at, even when these contravened strict Islamic canon. Babur's remarks about the Hindu guild system quoted above continue with the claim that '1,491 stone-cutters worked daily on my buildings in Agra, Sikri, Biana, Dulpur, Gwalior and Kuil . . .'[3] In a firman to Mirza Raja Jai Singh of Amber, Shah Jahan tetchily demands that the raja send sculptors to the capital so that they can work on the Taj Mahal, instead of 'detaining them at Amber'.[4] From documentary evidence such as this, it is apparent that at all periods Indo-Islamic patrons depended – not exclusively but considerably – on Hindu craftsmen. And the effects on their architecture are plainly visible even in their earliest buildings: it is widely recognized that the corbelled construction of the arches of India's first mosque, the Kutb mosque (c. 1200), is a mark of Hindu craftsmanship [22].[5]

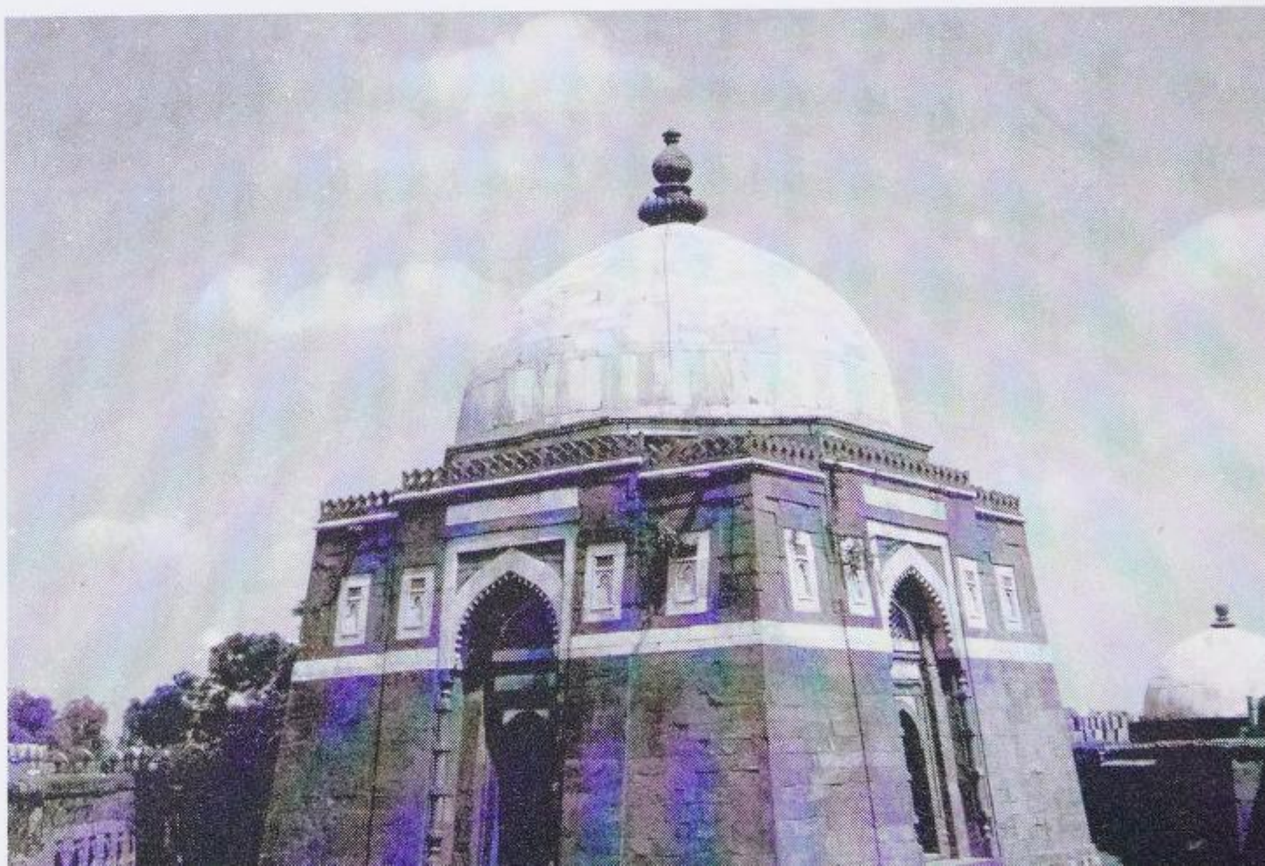
The degree of Hindu influence on Indo-Islamic buildings – that is to say, the degree to which the Hindu masons were at liberty to introduce their own techniques and ideas – is not consistent. It is much more evident in the mosques and tombs built in Ahmadabad by the Ahmad Shahi sultans [23] than it is in those of Tughluq Delhi [24]. But it is always present; so that the sources of Indo-Islamic architecture are to be found as much in Hindu (and Buddhist) monuments in India as in buildings outside India's borders. It would therefore be misguided to regard the Indo-Islamic tradition as foreign, as opposed to an indigenous Hindu tradition, despite its use of a foreign technology and the forms associated with a foreign religion. On their



22. Delhi; the screen of the Kutb Mosque, in front of the Kutb Minar (c. 1200)

23 (left). Ahmadabad; Kutb Shah's Mosque (1449)

24. Delhi; the tomb of Ghias-ud-din Tughluq (1325)



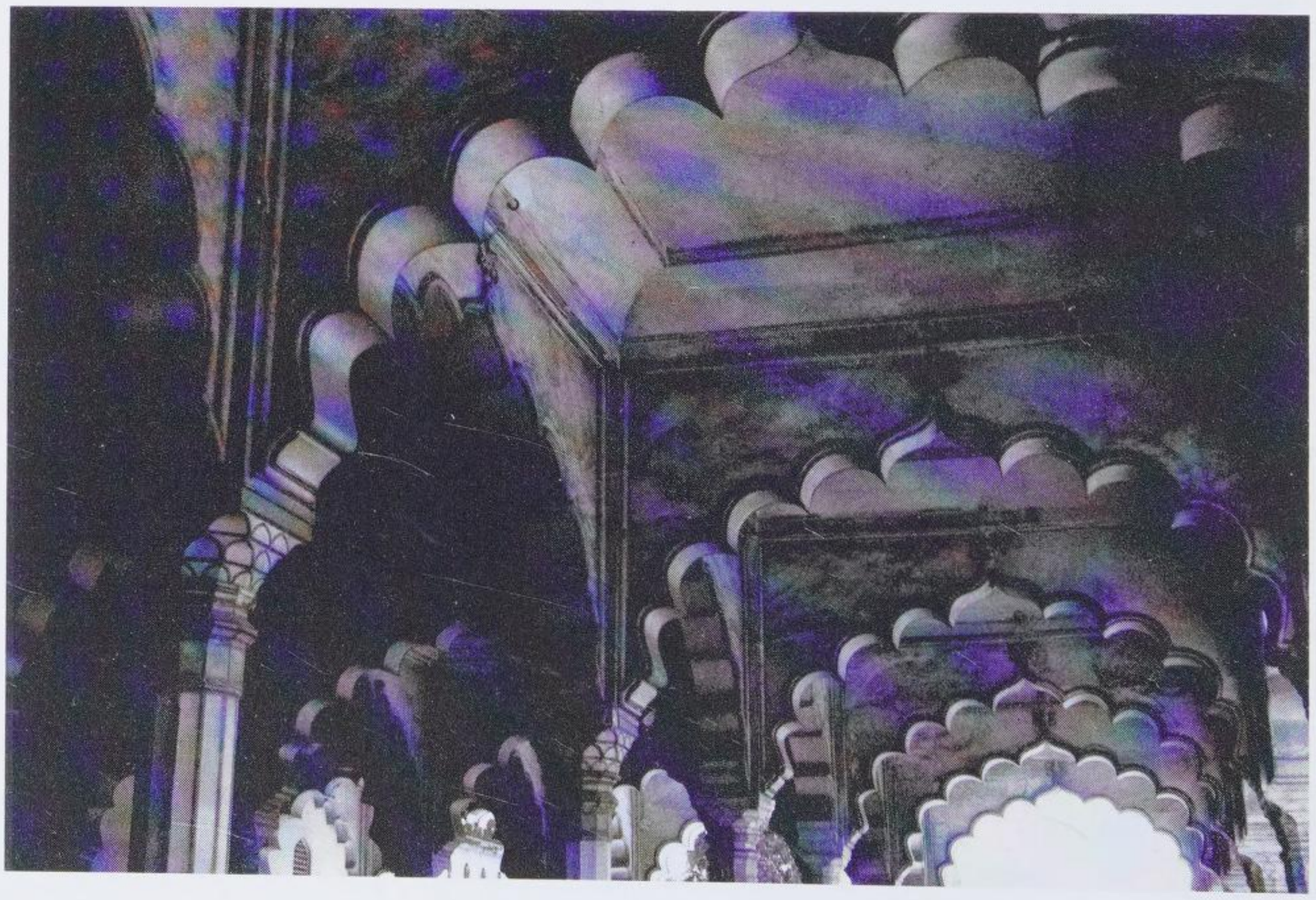
arrival in India, the Muslims looked for craftsmen to construct their mausoleums of rarefied geometry, and found men more practised at erecting mountains of organic sculpture [47].

There is, then, a convergence of two diverse traditions; while each retains its essential character, there is also a process of mutual adjustment. This might be described as the establishing of a counterpoint – a metaphor intended to suggest simultaneous separation and relation.

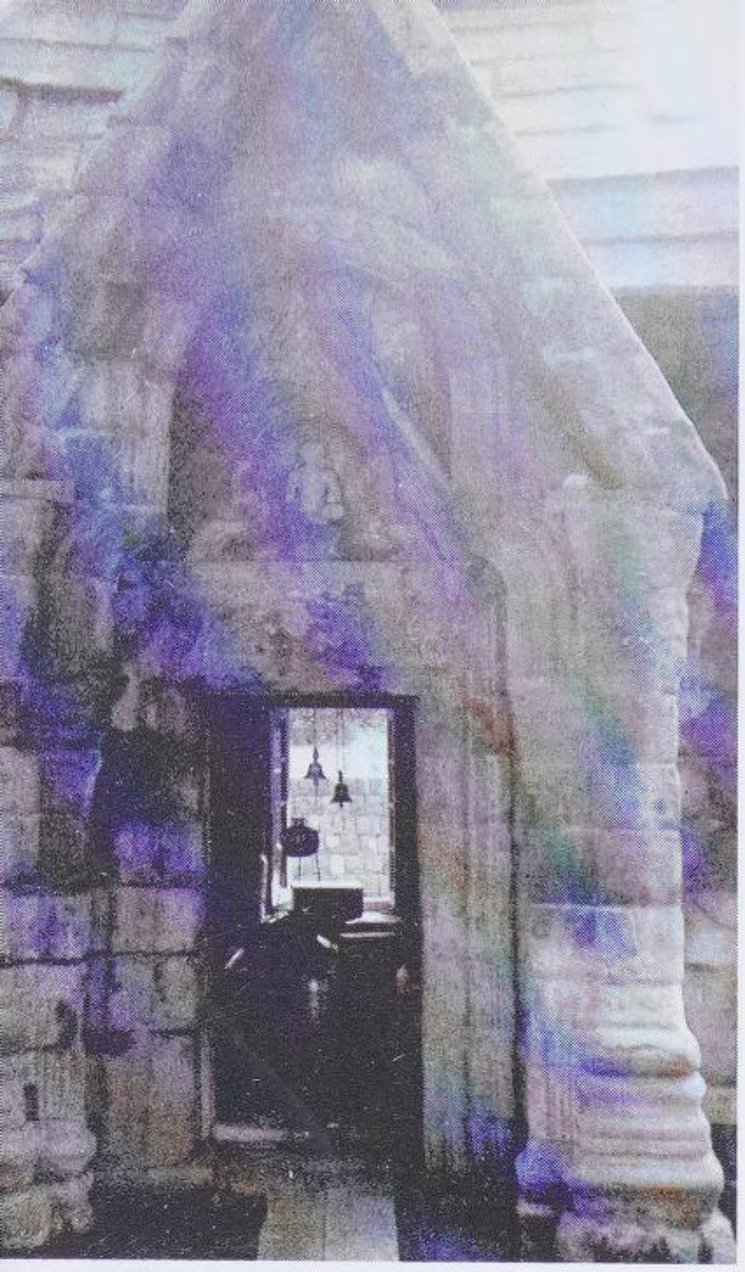
The two traditions – Indo-Islamic and secular Hindu – are represented in northern India in the early modern period by Mughal and Rajput architecture respectively; and the relation between these schools is but one manifestation of the counterpoint. A Hindu influence had informed the buildings of all previous Muslim dynasties in India, and Mughal buildings were but the most recent examples. Secular Hindu antecedents for Rajput architecture, as often stated, do not survive, and so whether Rajput architecture established or continued the counterpoint on the Hindu side cannot now be established. It is not, however, a unique example: an Islamic influence is observable in the contemporary secular Hindu buildings at Vijayanagara.

The Mughal style sustains the counterpoint by incorporating the corbel capitals, *chajjas* and brackets among many other details of the Hindu tradition; while the Rajput style incorporates Indo-Islamic forms including some of specifically Mughal invention in India, such as balustered and fluted columns and certain types of applied decoration. And it is this process of mutual borrowing – and not a simple Mughal influence – which accounts for many of the similarities between the two styles.

Such borrowing was of course facilitated, as before, by the sharing of craftsmen. But if some of the similarities between the styles were encouraged by this sharing, the dissimilarities persist despite it. The same craftsmen could produce buildings of quite different styles, when working under different direction. The features which distinguish Hindu and Indo-Islamic styles are the consequences of the demands, on the one hand, of a continuing Hindu tradition, and on the other hand, of Muslim supervising architects and patrons who required the Hindu masons to adapt their skills to concord with Muslim design ideas and building requirements.



25. Agra Red Fort; the ceiling of the Diwan-i-Am (1627)



26 (left). Kashmir; the Pandrethan temple (10th century)

27. Khajuraho; the entrance to the Kandarya Mahadev temple (c. 1000)

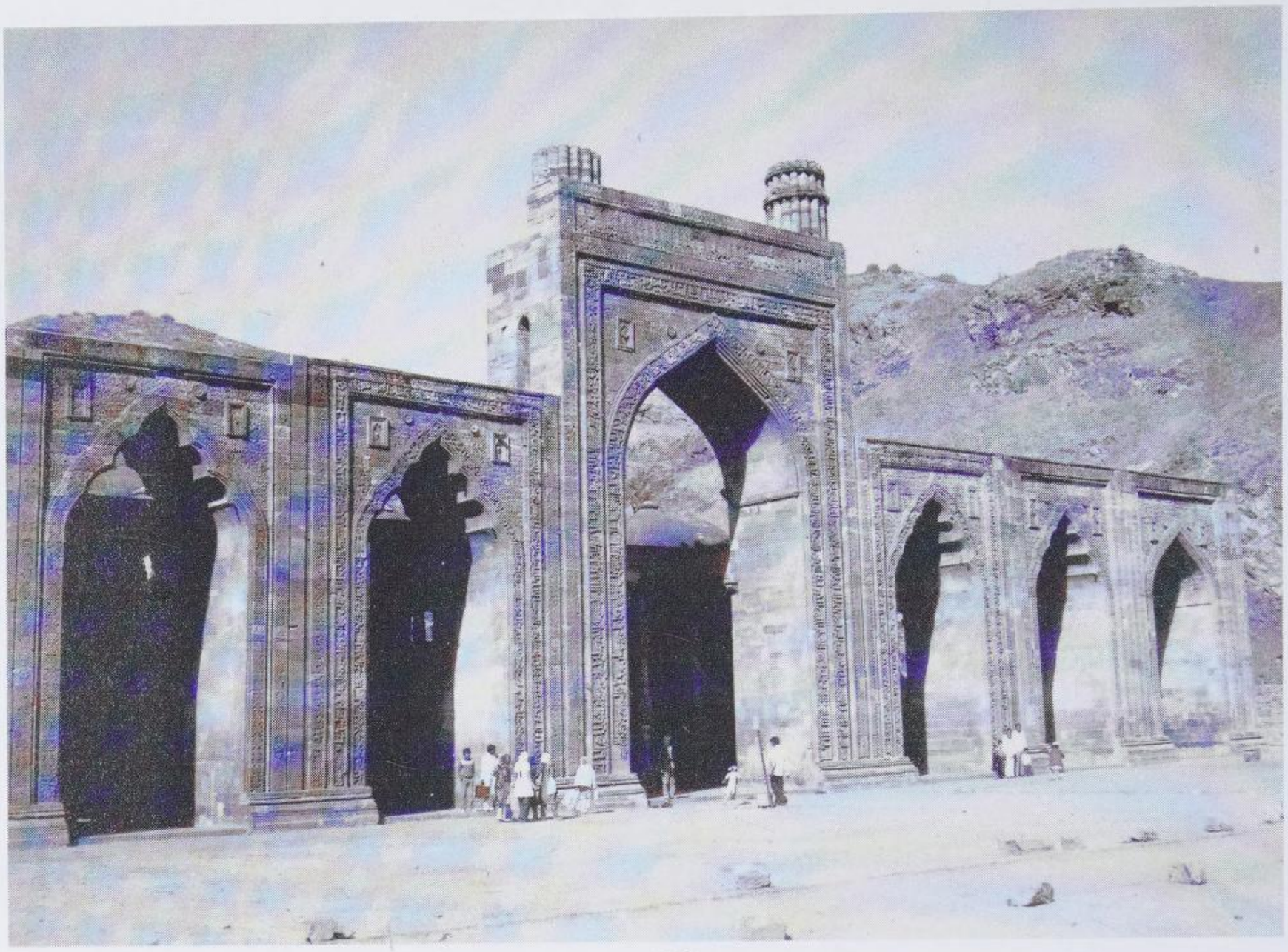
Because the borrowing of forms, at least on the Indo-Islamic side, had been long practised, the very cultural heritages of the styles were somewhat intermixed. Some forms had ceased to be characteristically either Hindu or Muslim as they were developed in buildings of either denomination.

One such form is the *bangaldar* roof. Derived ultimately from the Bengali vernacular bamboo hut, it had been first adopted in lithic form in the Muslim architecture of that region. It was introduced into Mughal architecture in a form close to the original [19], and at the same time into Rajput architecture in that and other guises [125, 165].

But of the architectural features common to both styles, the one which is perhaps most often misunderstood in this context is the cusped arch. Because it is used to such splendid effect in the Mughal palaces of Agra and Delhi [25], the cusped or foliated arch is often taken to be a hallmark of the Mughal style,[6] and if it is so taken then its appearance in Rajput architecture might seem to indicate a paramount Mughal influence. In fact, the cusped arch plays a longer and more complicated role in the history of Indian architecture.

The form of the cusped arch, and variants of it, occur on Hindu and Buddhist monuments built long before the first major Indo-Islamic monuments. It may be noted that it is the form which matters, and not the structure: though none of the early Hindu or Buddhist cusped arches is a true arch, consisting of radiating voussoirs, this does not disqualify them as precedents for the Indo-Islamic examples, since the latter are not often true arches either. The oscillating line of the cusped arch is not easily achieved by voussoir construction, which more readily produces a single smooth curve. Moreover, the cusped arch is most commonly used on a small scale for which the greater strength of the radiating arch is not required. Instead, the form is usually carved out of vertical slabs, cemented or cantilevered between the columns. The cusped arch of both Hindu and Indo-Islamic architecture would therefore usually be more properly described as a cusped arc; it is, structurally, not an arch but a pair of brackets.

It appears on both the eighth-century temple of Martand, near Anantnag, and the tenth-century temple of Pandrethan, near Srinagar [26] (both in Kashmir), in



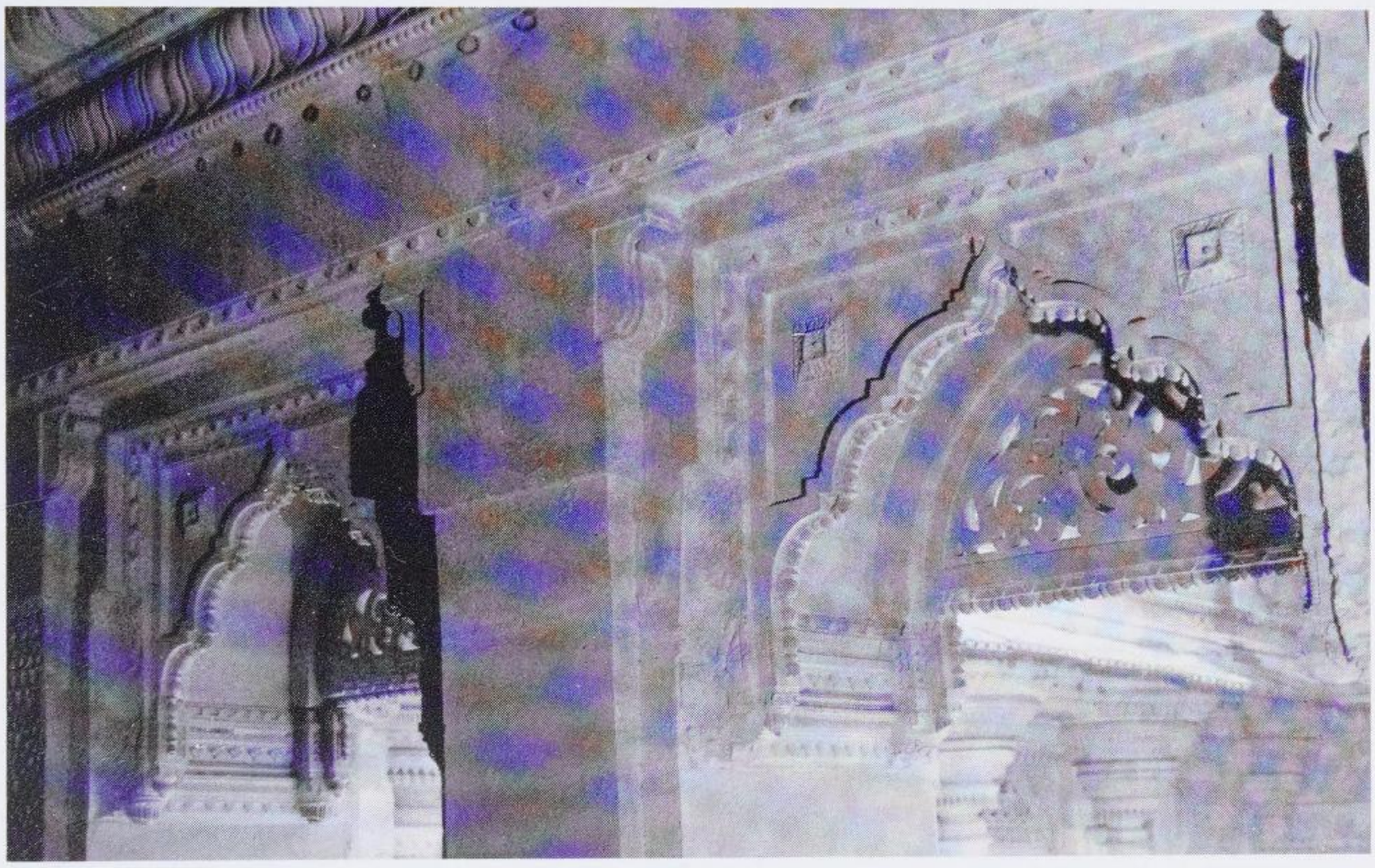
28. Ajmer; the Arhai-din-ka-jhonpra (c. 1200)

the form of a trefoil niche carved above the lintels of doorways, to accommodate figures of deities. Foucher argues that these Kashmiri cusped niches are derived from Gandharan models, and so traces the history of the form back to the first centuries of the Christian era.[7] A flying cusped arch spans the entrance to the Kandarya Mahadev temple, built about 1000 AD at Khajuraho by the Chandel Rajputs [27]. In this flying form it is repeated elsewhere: next in the eleventh-century Solanki Rajput temples of Gujarat (for example, the Surya temple at Modhera) and then in the Jain temples of Gujarat and Rajasthan. Representations of cusped arches supported on columns are found in Pala sculpture of the eleventh century, suggesting that they were a feature of the architecture of that Buddhist Bengali dynasty.[8] These are some of the numerous and widespread variants of the form in India which anticipate the inception of the Indo-Islamic school.

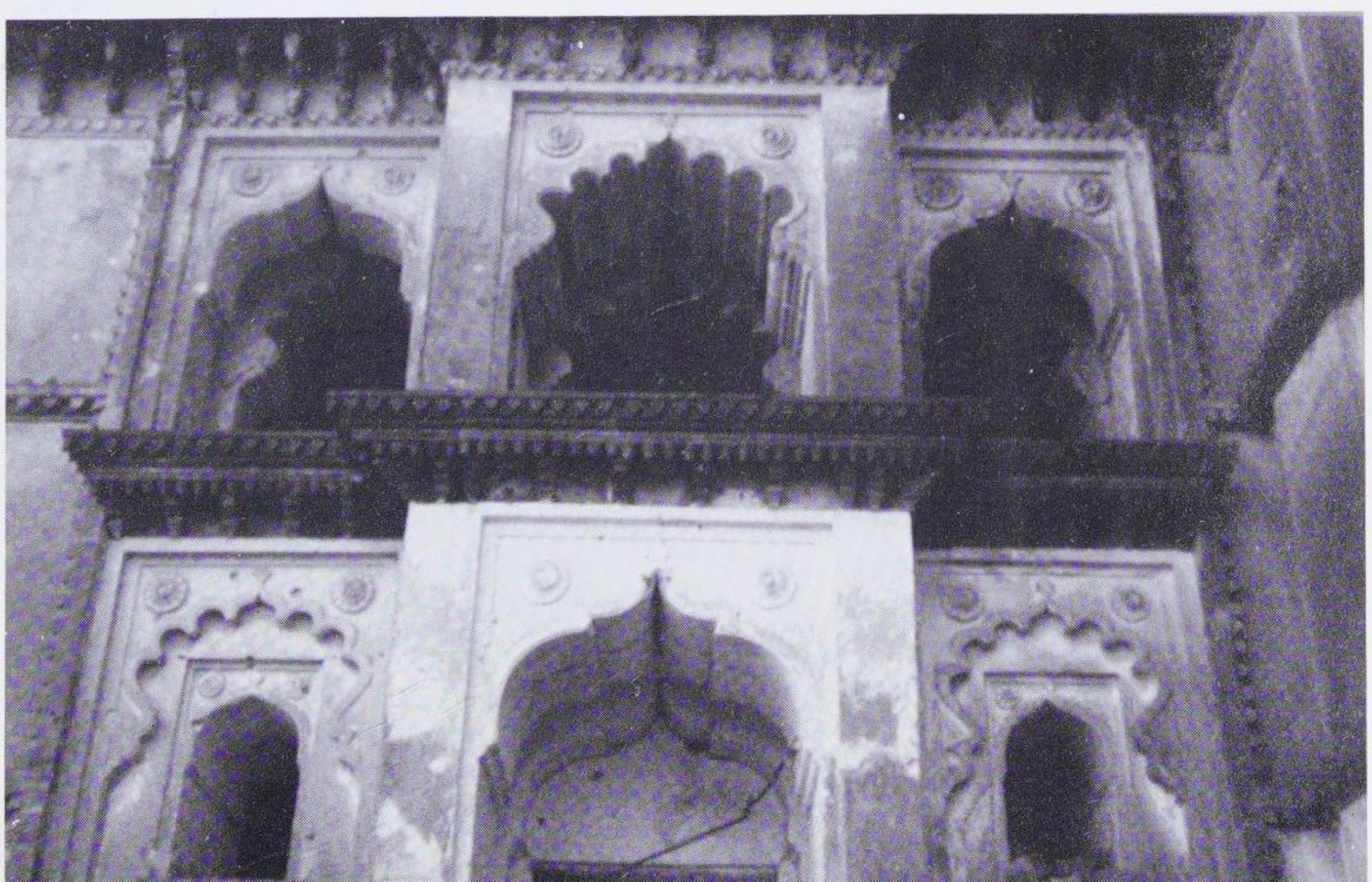
The Muslims were quick to take it up. It appears in the screen of the Arhai-din-ka-jhonpra [28], the mosque built at Ajmer in about 1200 AD by Kutb-ud-din Aibak, the first resident sultan of Delhi, who was responsible also for the oldest parts of the Kutb mosque at Delhi. The ruins of Tughluqabad testify that a multi-cusped arch was used in Muslim domestic architecture in early fourteenth-century Delhi. It appears next in the fifteenth-century domestic architecture of Chanderi, in northern Malwa. (Percy Brown asserts that the sultans of Malwa looked to Delhi to supply the artisans they lacked, and that this accounts for the stylistic similarities between the architecture of Malwa and, *inter alia*, Tughluq buildings;[9] he does not include the cusped arch in his list of shared characteristics, but even so his assertion, if correct, could account for its presence in Chanderi.) In the neighbouring sultanate of Gujarat, the early fifteenth-century Jami Masjid at Ahmadabad has a flying cusped arch across the entrance [29], seemingly in imitation of those in the Solanki temples of the region; and the late fifteenth-century Chota Sona Masjid at Gaur, in the sultanate of Bengal, inherited the form, presumably from Pala architecture.

The Khajuraho temple provides probably the earliest example of the use of the cusped arch in a Rajput building. Seemingly, at some stage it dropped out of the Rajput architectural vocabulary: it is not found in the mid-fifteenth-century palace

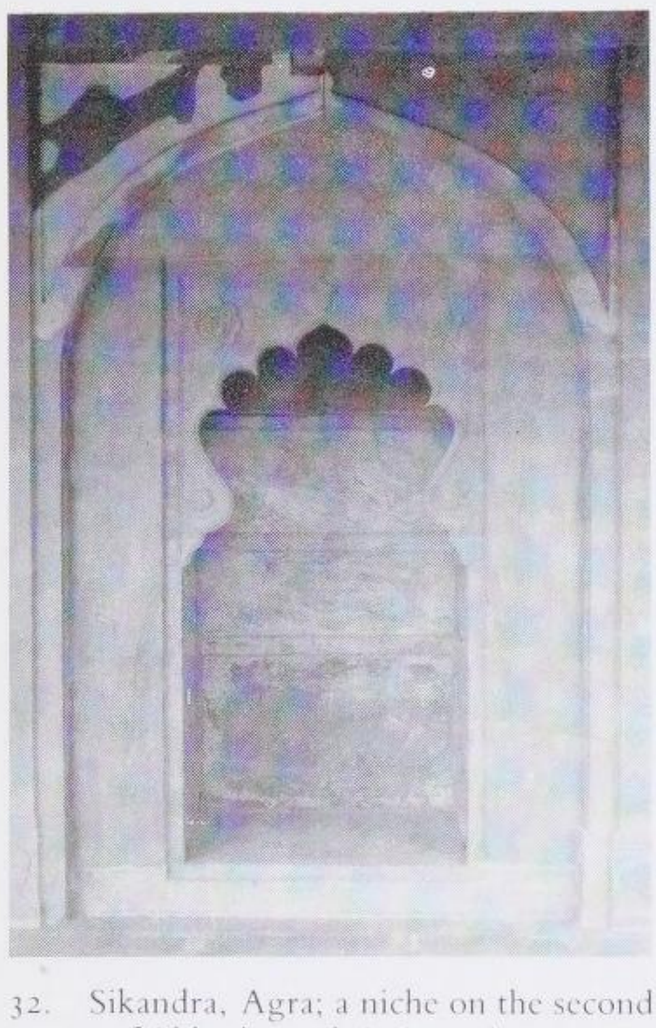
29. Ahmadabad; the entrance to the sanctuary of the Jami Masjid (1424)



30. Gwalior; cusped arches in the Man Mandir (c. 1500)



31. Orchha; arches in the Caturbhuj temple (1603–27)



32. Sikandra, Agra; a niche on the second storey of Akbar's tomb (1605–13)

33 (top). Delhi Lal Qila; the Diwan-i-Am (1638)

of Rana Kumbha at Chitor (the oldest surviving Rajput palace).[10] It reappears, used sparingly, in the Man Mandir of Raja Man Singh Tomar at Gwalior (c. 1500) [30]. In Chapter Four it is shown that the architects of Man Singh's palace adopted many motifs from the architecture of not far distant Chanderi; and so it is possible that the cusped arch was reintroduced into Rajput architecture from Chanderi.

Midway between Gwalior and Chanderi is Orchha, a town which rose to prominence a century later than Gwalior, under Raja Bir Singh Deo (1605–27). The cusped arch is used more confidently and extensively in Bir Singh's Caturbhuj temple than in the Man Mandir [31]. It is found too in the rather older Raj Mandir (late sixteenth century), also in Orchha [13]; there is no reason to suppose that the pavilions with cusped arches in this palace are later additions,[11] since they are integral parts of the palace's design. From this date, 1560, until the middle of the following century, the form of the cusped arch was experimented with infrequently but widely throughout the Rajput states: a small colonnade of cusped arches is found in the Rampuria ki Bagichi at Bundi (1602) [139][12] and a cycle of miniature paintings, now in Kota, shows that the cusped arch was a feature of Udaipur buildings in the early seventeenth century.[13]

Similar experiments are evident in Mughal buildings from the middle of Akbar's reign (1556–1605) through that of Jahangir (1605–27). Cusped arch forms are found carved in relief in various places in Fatehpur Sikri (from 1571). Immature, awkward, cusped arches are found in the second storey of Akbar's tomb at Sikandra (1605–13) [32] and discreetly in the corner towers of the tomb of Itmad-ud-daulah at Agra (1626). But in the reign of Shah Jahan (1627–58) the form was brought to splendid maturity in the palaces at Agra and Delhi [33]. From then on it was used extensively and confidently. The Rajputs quickly adopted the newly matured form in their own capitals. But soon it became over-used by both Mughal and Rajput schools and its power was lost in proliferation [34]; in eighteenth-century Indian architecture there is no respite from the ubiquitous cusped arch.

The development of the cusped arch in early modern Indian architecture was thus a joint venture. This old motif, of distinguished lineage, was first reintroduced

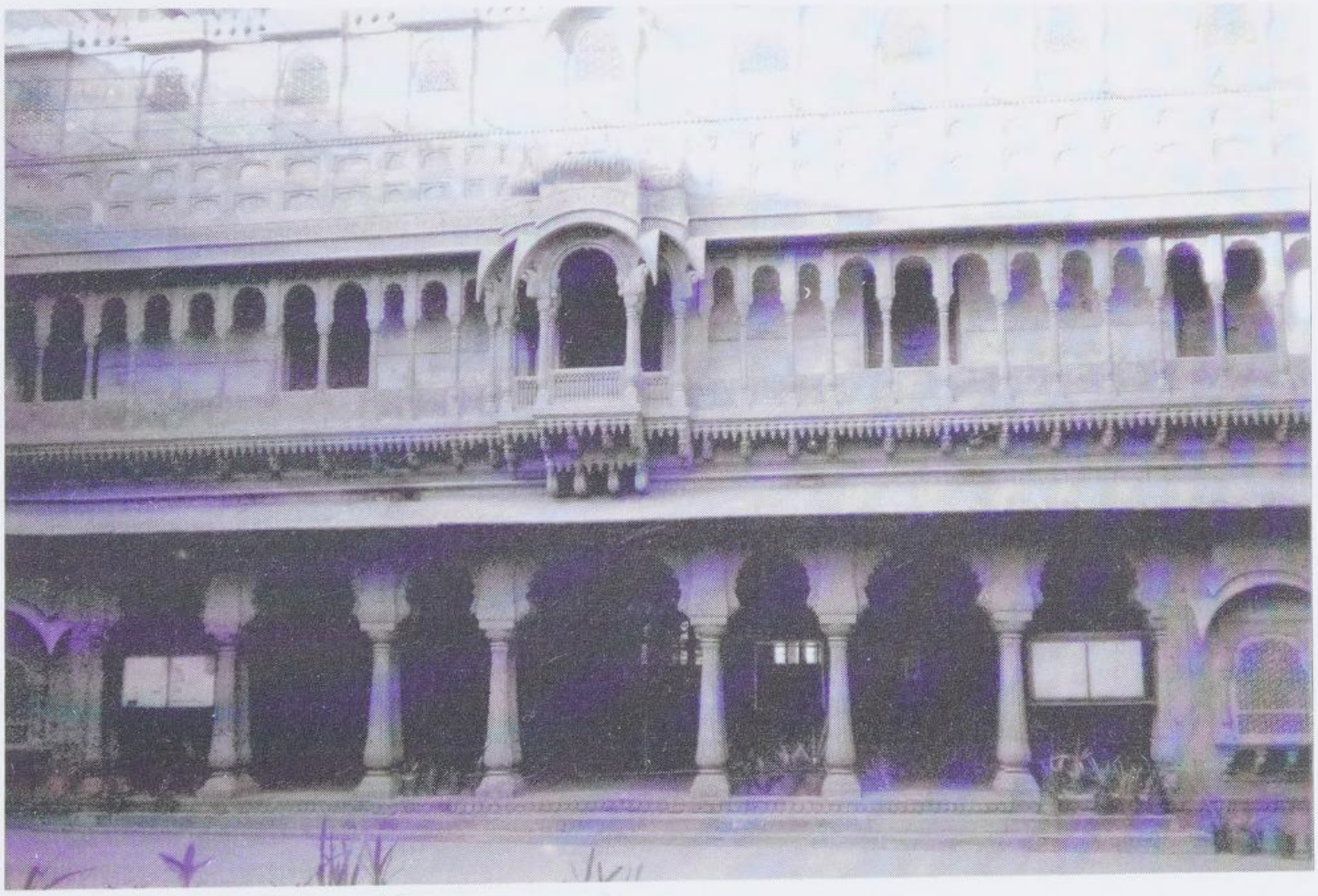
in a Rajput building (the Man Mandir at Gwalior was built before the Mughal invasion of India); it was subsequently experimented with in both Rajput and Mughal buildings; then brought to maturity in Mughal ones; and finally over-used in both.

This long elaboration of the history of the cusped arch serves to show that the two styles have a common ancestry in earlier Indian architecture,[14] and that the two traditions which they represent had already in certain aspects become irredeemably intertwined.

Even that is not the end of the matter. On a few occasions the interaction of the styles amounts not to an influence but to something much more radical: a wholesale adoption by one school of the other's style. The result is that neither school is stylistically consistent.

All Mughal buildings incorporate Hindu forms to some degree, but in Akbar's palace complex at Fatehpur Sikri they are used almost exclusively [35]. The buildings are largely of trabeate construction and the forms and details are taken from the Rajput and, more especially, the Gujarati traditions [72]. The Fatehpur Sikri palace seems to be extraneous to the development of Mughal architecture, having no dependence on earlier Mughal buildings and offering no basis for the later ones. Similarly, the *diwan-i-am* of the Rajput palace at Jaipur [36] appears to be a transported Mughal building [33]; in the design of the hall the craftsmen have ignored the accumulated precedents of the Rajput school.

Rare but striking cases such as these reveal not the modification of one style through contact with another – a formula seen elsewhere – but rather the crossing of political boundaries by architectural styles. This more radical process was feasible, of course, because the craftsmen who practised the styles crossed political boundaries. Fatehpur Sikri is named to commemorate the subjugation of Gujarat achieved by Akbar in 1572–3, when work on the new capital was beginning. This victory brought to an end a Muslim dynasty in Gujarat which since the early fifteenth century had employed Hindu craftsmen and had been even more generous than others in the degree of freedom they granted to those craftsmen to make use of their traditional skills and designs. As a result of this policy, a Hindu tradition had survived in



34. Bikaner Palace; the north range of Vikram Vilas Chowk (late 18th century)

35. Fatehpur Sikri; part of the palace, from the north-west (1570s)

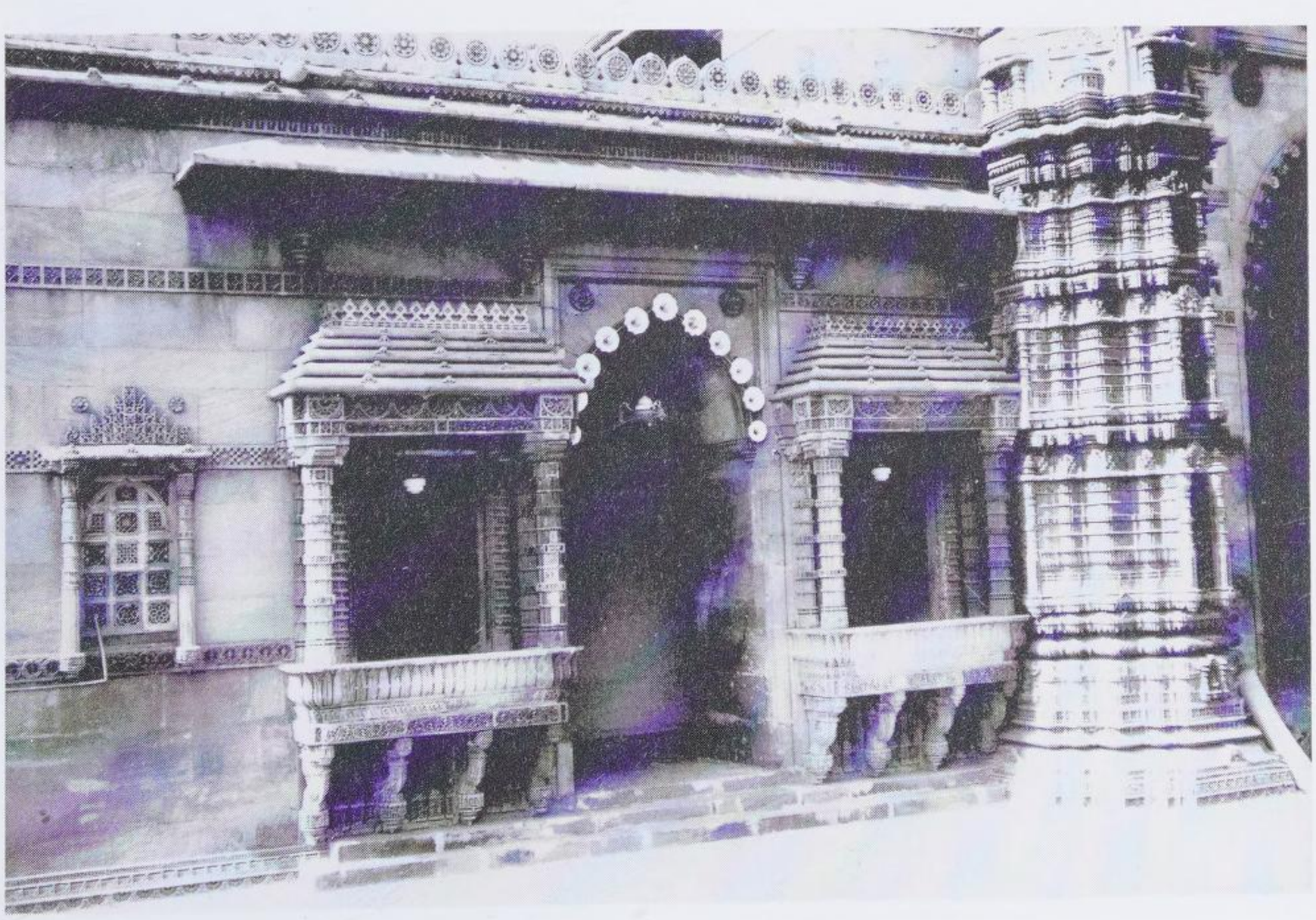
36. Jaipur Palace; the original Diwan-i-Am (c. 1735)

Gujarat, though adapted to the creation of Muslim types of building: the mosques of Ahmadabad, but for their plans, might be mistaken for temples [23, 37]. Having abruptly lost their patrons and been brought within the borders of the empire, the Gujarati craftsmen would willingly have migrated to the court of the conqueror. Akbar would therefore have had at his disposal these craftsmen, practised at adapting the Hindu tradition to Muslim building types. This accounts for the equation found at Fatehpur Sikri: thoroughly Hindu in the details of the style, in planning and arrangement it is nevertheless an Islamic palace.

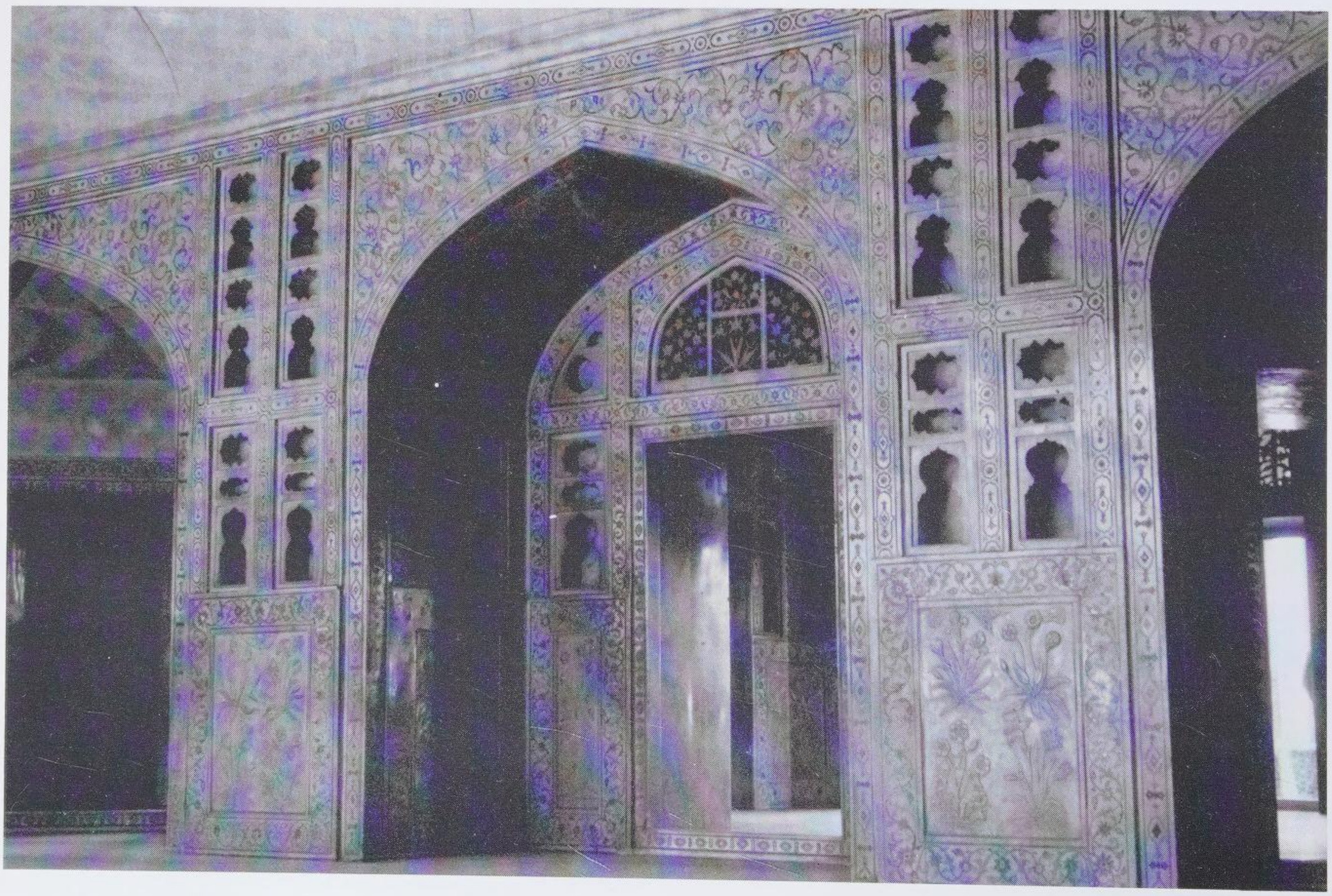
The *diwan-i-am* of the Jaipur palace was built somewhat later, in the 1730s, when the Mughal Empire was in a state of decline and craftsmen were leaving the Mughal capitals to seek new patronage at the flourishing Rajput courts. The powerful Sawai Jai Singh II of Jaipur was one patron who could attract these craftsmen, trained in the imperial style.

This trading of architectural styles does not entail a disintegration of the differences between them. For much as the Fatehpur Sikri palace resembles Hindu buildings and the Jaipur *diwan-i-am* resembles Mughal buildings, they do not at all resemble each other. The distinct identities of the styles have been preserved though their customary patronage has been inverted. A Mughal Emperor has commissioned a palace in the Hindu style while a Rajput raja has commissioned part of a palace in the Mughal style. From this it seems that the style adopted for any project depends primarily on the predilection of the individual patron, or on the training of available craftsmen, rather than on either's race or religion. It also appears that the relation between patronage and style – at least in this period of Indian history – is somewhat loose.

In view of this disjunction of patronage and style, we must amend our terminology. Each of the terms 'Rajput' and 'Mughal' is commonly applied in two quite different ways: it is used both to refer to patronage and to describe style. But patronage and style are evidently not co-extensive, and though we may wish both to indicate a building's patron and to describe its style, these things cannot both be done at once; we require two separate systems of reference. In the present work, the terms 'Rajput' and 'Mughal' refer only to patronage. (Similarly, the terms 'Hindu' and 'Indo-Islamic' refer only to patronage; the phrases 'Rajput school' and 'Mughal school' are also used to refer to patronage, meaning in each case all of the buildings



37. Ahmadabad; Rani Rupavati's Mosque (1500)



associated with the centre of patronage named.) Architectural styles are described by phrases such as 'Rajput style' and 'Mughal style'. The Rajput style is therefore that architectural style which is particularly associated with the Rajput school, but not exclusively with it and not with the whole of it.

It may be added in passing that a similar problem, though it might arise, is more easily dealt with when discussing European architecture because a vocabulary has been developed to cope with it. We can describe the British Museum, say, as Grecian without implying that it is Greek.

It is the failing of much past writing on Indian architecture, that it first classifies buildings according to patronage and then attempts to construct categories of style which match those classifications neatly. In consequence, both the extent and the mechanics of the spread of architectural ideas in India are overlooked. Examining the spread of ideas encourages a classification of buildings according to the manifestation of those ideas, that is to say, by style. Havell identifies the error in Fergusson, but he rejects style as a criterion for classification, considering architecture to be an expression of 'national life and thought'.[15] He does not explain how these phenomena manifest themselves in architecture or how, once manifest, they are to be distinguished from architectural style.

The features common to the Rajput and Mughal styles, accounted for at some length above, are mostly details, or specific forms. Numerous as they are, they are more than outweighed by the differences; differences which may, however, be dealt with more briefly even though they affect more fundamental aspects of the styles.

Differences of detail may certainly be found: in Mughal architecture, for example, there is a greater dependence on more purely Islamic decorative forms, whereas in Rajput architecture there is a corresponding dependence rather on local folk art traditions [38]. More pervasively, there is a difference in underlying character. In typical Mughal buildings there is an elegant refinement [39], partly dependent on the use of exquisite materials, including semi-precious stones; sometimes, indeed, the semi-precious becomes a little over precious. Such effects are not often attempted in Rajput buildings, where more apparently haphazard, more dramatic, more picturesque effects are preferred [14].

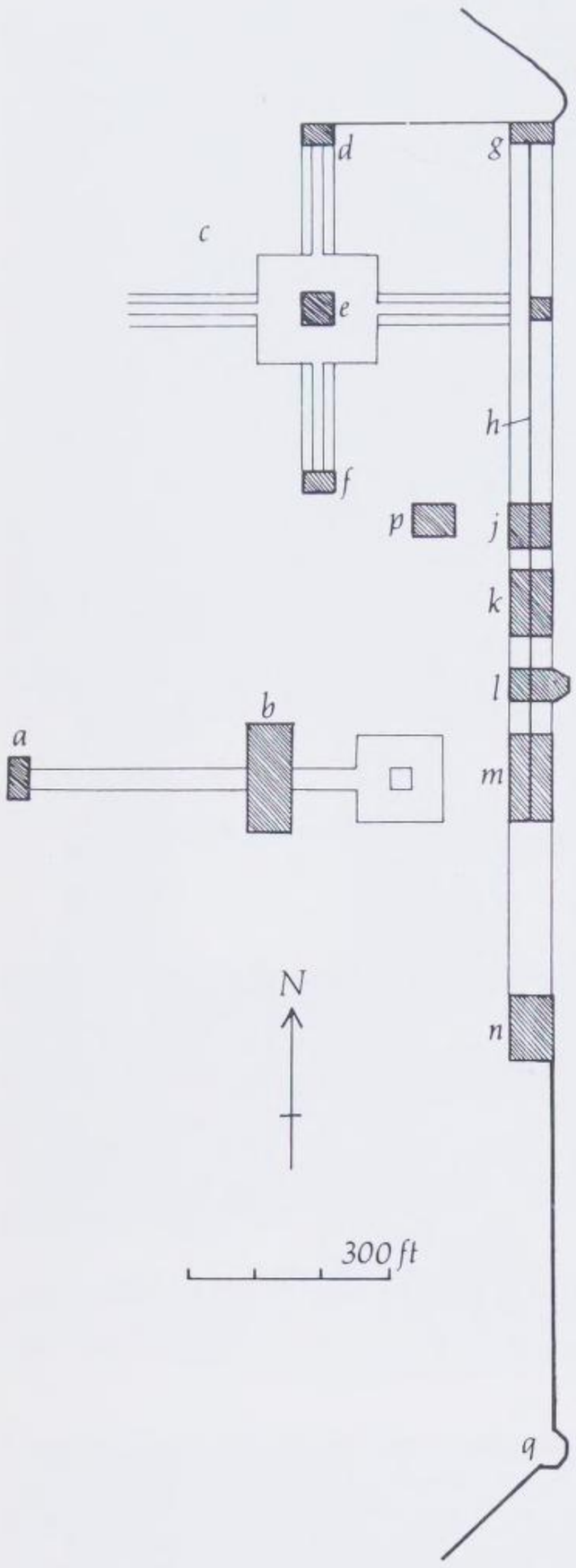
But the salient differences between the styles concern not the form or the character but the arrangement of parts: the massing, planning and siting of the major palaces. The typical Mughal palace consists of a number of separate buildings formally disposed about a piece of level ground which is surrounded by a defensive fort wall [40]. The typical Rajput *garh* palace is a single continuous mass of fortification and palace combined, built either on the top or on the slope of a hill [41]. Often, it

38 (facing above). Jodhpur Fort Palace; the Takhat Vilas (1843–73)

39 (facing below). Agra Red Fort; an apartment in the Mussaman Burj (c. 1630)

40 (left). Delhi; the range of palaces in the Lal Qila (1638–40)

41. Amber Palace, from the east (c. 1592–c. 1725)



42. Delhi; a sketch plan of the east side of the Lal Qila (1638–40): *a* – Nakkar Khana; *b* – Diwan-i-Am; *c* – Hayat Bakhsh garden; *d* – Bhadon pavilion; *e* – Zafar Mahal; *f* – Sawan pavilion; *g* – Shah Burj pavilion; *h* – Nahr-i-Bihisht (linking channel); *j* – Hamman; *k* – Diwan-i-Khas; *l* – Khas Mahal; *m* – Rang Mahal; *n* – Mumtaz Mahal; *p* – Moti Masjid; *q* – Asad Burj

is true, a Rajput palace is contained within a fortress, but on such occasions the palace always either grows out of and forms a part of the fort wall [11] or, if detached, is itself further defended. So in the Rajput examples, fortification and palace are much more integrated, the palace consists of a single complex rather than a group of buildings, and it is built on high ground.

As remarked, the *garh* palace at Jaipur is an exception to this, being influenced by Mughal planning.[16] It is built on a plain, it consists not of a single mass but of a level series of courtyards, and its fortifications are separate from it [214]. However, the Mughal influence is not total: in its original conception the palace did consist of a single block – the seven-storeyed Chandra Mahal – and the other courtyards are subsequent additions.

These general rules apply only to the *garh* palaces and not to the other Rajput buildings. The pleasure palaces and other houses are very diverse in kind, but for the most part they too differ from the Mughal palaces in their plan. Only Suraj Mal's palace at Dig follows the Mughal type of plan very closely.

The Mughal type, perhaps derived from the Central Asian camp,[17] is well illustrated by the Purana Qila and the Lal Qila [42], both in Delhi, and by the palace complex at Fatehpur Sikri. The major pavilions in the palace in the Lal Qila do touch the fort wall, but they are detached from each other. Some of the palace buildings at Agra are exceptional, being more integrated with each other as well as contiguous with the fort wall, but their greater integration may be the result of a Rajput influence: certainly there is no Indo-Islamic precedent for it. The Rajput influence evident in that palace's forms and motifs is often remarked on,[18] and such influence is found elsewhere; Rajput influence on the planning of a Mughal palace is less common.

The anomalous position of Rajput architecture – that it is a Hindu art of the Muslim period – results not only in its being neglected by scholars. It means also that there is a temptation, amongst those who do discuss it, to regard it as a side-effect of the Islamic tradition in India. This assessment is first sketched in with a few brief remarks by Fergusson: he admires the earlier Rajput palaces, for example, but laments that those built in the Mughal period lack 'that stamp of Hindu originality'.[19] Where Oscar Reuther departs from his stated aims and analyses style, he describes the mature Rajput style as if it were a provincial variant of Shah Jahani architecture, lacking its 'noble elegance and clarity'.[20] Later, though giving greater emphasis to analysis of stylistic development, Percy Brown still fails to relate the Rajput school to the main corpus of the Hindu tradition; Hermann Goetz denies that any such tradition exists in a secular form; both describe Rajput architecture as a Hindu imitation of Indo-Islamic, and particularly of Mughal architecture.[21]

Other writers have accepted this view uncritically, and some have taken it as a reason for giving the subject only cursory attention. Thus S. K. Saraswati, in his otherwise admirable contributions on art to the volumes of *The History and Culture of the Indian People* (1960/74),[22] mentions no late Rajput buildings except those built before the Mughal invasion, which alone are deemed to represent 'more or less, an indigenous style'.[23] The writers of recent general works on Indian art avoid such reiteration of Brown and Goetz by continuing to ignore Rajput architecture entirely; they thereby reinforce the impression that it need not be treated as a distinct Hindu development.[24]

From what is said above, it is clear that to describe Rajput architecture as an imitation of Mughal architecture is to misrepresent it. In the first place, there are two distinct relations to be defined: the relation between the Rajput and Mughal styles and that between the respective schools. The two styles have many common features; some of these are Mughal inventions and so indeed indicate a Mughal influence on the Rajput style; some are Rajput or otherwise Hindu inventions and

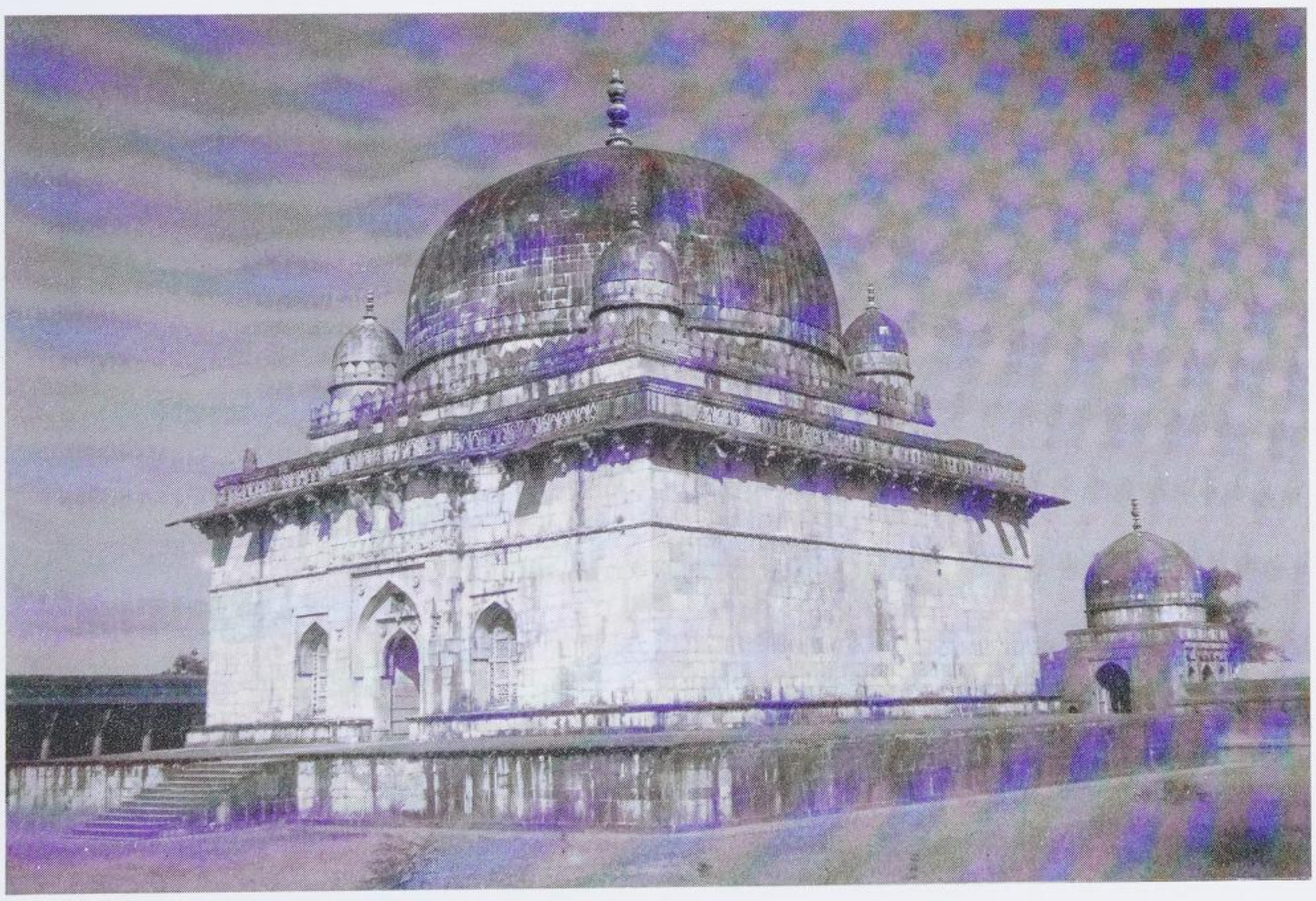
so indicate an opposite influence; others again indicate a mixed ancestry. And despite the many common features, there are also fundamental differences between the two styles, of which the most striking concern planning. The two styles developed adjacently and simultaneously and they borrowed freely from the same sources – from Hindu and Buddhist temple architecture, from the buildings of early Indo-Muslim dynasties and from each other – but they remained distinct.

The relation between the two schools which employ these styles is another matter. In a few Rajput buildings (such as the *diwan-i-am* of the Jaipur palace) the Mughal style has been adopted; and similarly in a few Mughal buildings (such as the palace complex at Fatehpur Sikri) a Hindu style has been adopted. But such crossing of political boundaries by the two architectural styles does not diminish the differences between them. Furthermore, this swapping of styles was possible because of the movement of craftsmen between the Rajput and Mughal courts, an arrangement which makes talk of 'imitation' between them inappropriate: if some Mughal and Rajput buildings are alike, this is often because they are the work, not of imitators, but of the same craftsmen.

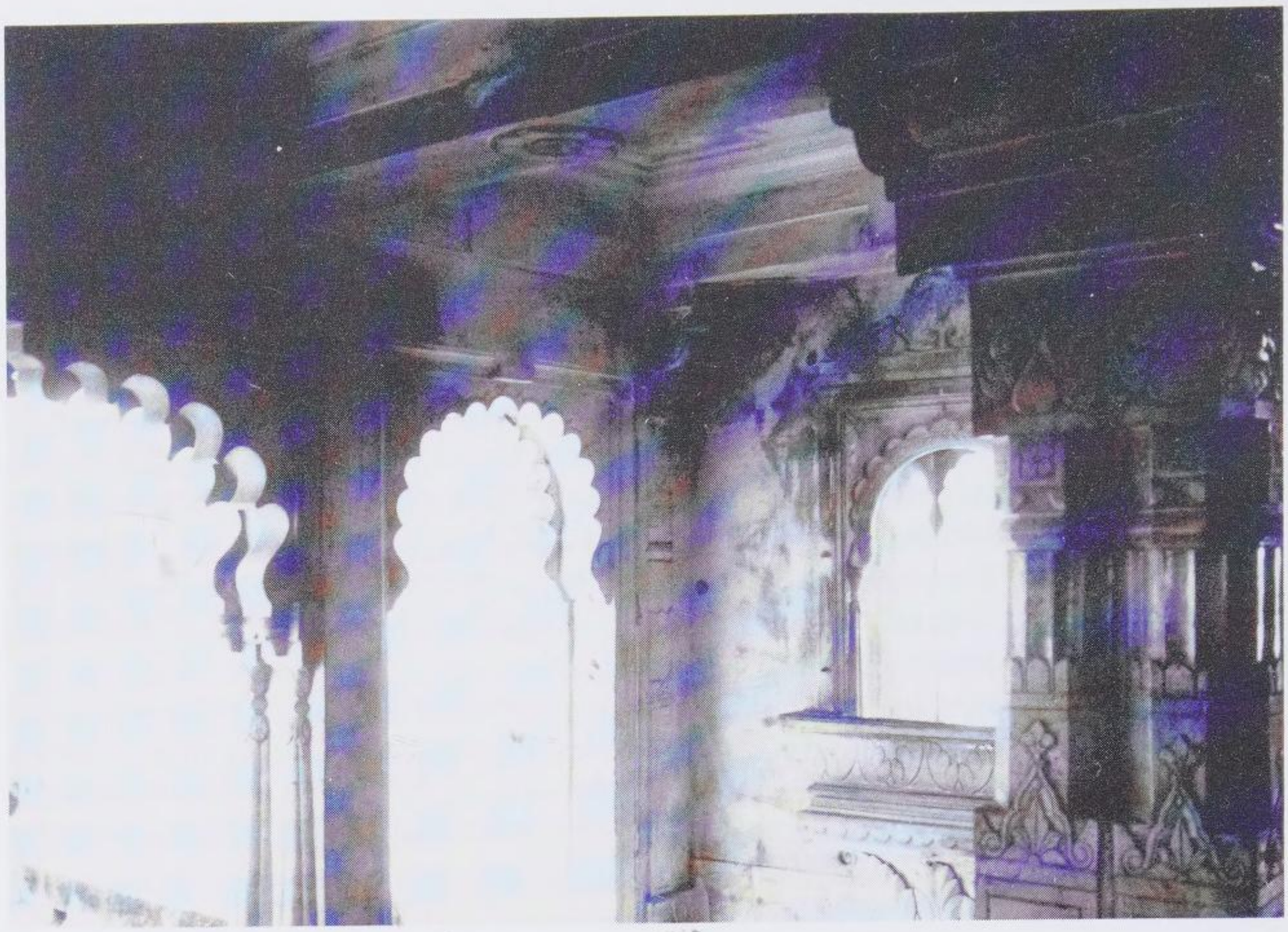
A very few Rajput buildings are, not imitations, but built in a style which the craftsmen more usually adopted when working for Mughal patrons. And the great majority are built in a different style. To be sure, it has some common ground with the Mughal style, but that common ground is the result less of Mughal influence than of the shared ancestry of the styles.

2. Asymmetry in the Rajput palaces

Almost all of the Rajput *garh* palaces conform to the type defined above – a single mass of fortification and palace combined, built on a hill – but in certain other aspects of their planning they differ from each other. Most are asymmetrical in both plan and elevation – they are irregular in all dimensions – while some are much more symmetrical in their plan and elevations, and formal in their massing.



43. Mandu; the tomb of Hoshang Shah (c. 1440)



44. Udaipur City Palace; the Chandra Mahal (1614–28)

We may assume that the irregularity of the majority is at least in part due to the piecemeal and spasmodic growth of the palaces over long periods, particularly since the more regular palaces are those which were built over relatively short periods. And yet it is quite feasible to make additions to a symmetrical scheme without impairing the overall formality, as many English country houses – and indeed the Mughal palaces – demonstrate; and furthermore the individual parts of a Rajput palace are often no more regular in themselves than the whole assembly. And so it is evident that the irregularity is in some measure the result of a deliberate attempt at picturesque informality.[25]

We may not assume, as Percy Brown does,[26] that the symmetry of the palaces in the minority group is the result of a Muslim influence: the principles of symmetry had been employed in Hindu religious architecture since its inception, and the Hindus did not require the Muslims to teach them how to draw squares. It is true that the earlier Rajput buildings have much in common with sultanate buildings at Mandu, Chanderi and Delhi, but the planning and massing are always points of distinction: Rajput plans are complex even when regular, and the Rajputs never adopted the elemental forms – the half-sphere domes on cubic chambers – of sultanate architecture [43]. Rajput use of symmetry – a subject which is treated more fully in Chapter Five – is rather the result of the architects having uncharacteristically obeyed some of the prescriptions of the *silpa-sastras*.

So neither the symmetry of some of the palaces, nor the irregularity of the others, could be said to be accidental; and neither is alien to the Hindu tradition. The Rajput style accommodates both of these opposing methods of procedure. They are not even symptomatic of different historical phases, for both are found throughout the whole history of the Rajput school. The informally planned palaces, however, are much the more common.

Their informality creates a special quality; not one which concerns the use of the buildings, but a sculptural and stylistic quality which concerns the effect of a building on us, as observers, as we travel through it. The effect is to elude our

immediate comprehension, to confuse or disorient us by means of complexity and ambiguity. The extensive and irregular plan of any of these palaces is so complicated that it cannot all be considered at once [163]. Led from one portion of the palace to another by means of narrow, winding, enclosed corridors, we cannot easily establish how the various parts cohere. Even individual rooms contribute to this effect: they are rarely simply rectangular but tend to be of more complicated and unexpected shapes, and we cannot see the whole of a particular room at once [44]. Forests of columns reinforce the effect by obscuring our view of parts of rooms. And so the forms of the individual rooms and the way in which they relate to each other are not clear or logical or easily readable.

The typical facade is no easier because of its unpredictable rhythm of advance and recess, further complicated by projecting balconies [45]. Also, it cannot be defined as existing in a single, particular plane which we can point to, and in this sense it is ambiguous, indeterminate, unfixed. The high-level courtyards inside the palace disorient us in another dimension. We find courtyards at different levels and so search for a ground level, or any fixed level, against which to measure the many others. This effect is particularly successful at the Udaipur *garh* palace, in which we enter a high-level courtyard to find it planted with mature trees, as if it were at ground level (an effect made possible by building against a hill) [*ix*]. So although the palace is a single, continuous mass, its form is so complicated that it cannot readily be comprehended as a unity.

A symmetrical and regular building we perceive quite differently. When we consider, for example, the Taj Mahal, once we have established that the building is symmetrical we can look at one elevation and understand them all [20]. We perceive

45. Dungarpur; part of the north front of the Juna Mahal (18th century, with later additions)

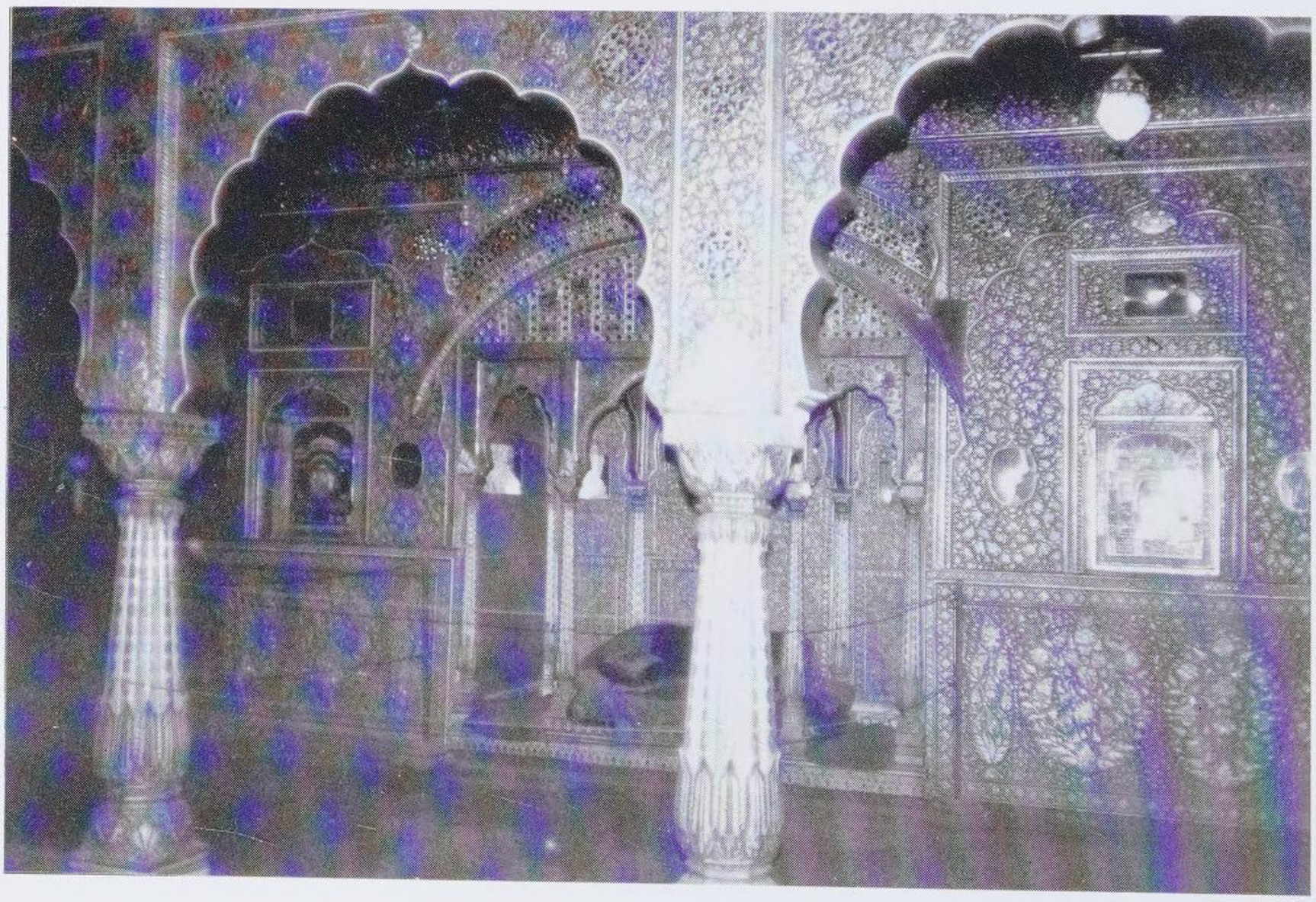
it, so to speak, synchronically; from the parts which we can see at any one time we make deductions about the parts not then seen. This synchronic type of perception is well illustrated by the story of the tourist at the Villa Rotunda who asked his companion, 'Is it really symmetrical, or do we have to go round all of it?' The majority of the Rajput palaces cannot be so perceived; we have to explore them part by part, and each part, once we have passed it, may be forgotten because the parts have no evidently logical relation to each other.

Richard Lannoy says of the sixth-century Ajanta frescoes that

> even the best preserved are exceedingly elusive to 'read'; one must make an appreciable effort to slow down one's reading of their visual language in order to perceive the spatial and tactile relations established between the figures . . . one is constantly discovering new figures which were unseen . . . and the tempo of this slow discovery is very precisely calculated.[27]

This is a similar effect to the one being described. In a Rajput palace forms are complex or ambiguous, they are not immediately readable, and sometimes (as with the indeterminate plane of the facade) we cannot define them. The palaces elude our full comprehension and mock our enquiries. An appropriate term to refer to this important quality might be 'elusion' (the term is preferred to the more common variant 'elusiveness' because its meaning has not become imprecise through overuse).

Apart from the planning and massing, there are other features of the typical palace which assist this elusion. In an effort to keep them cool, the palaces are so designed that many apartments are perpetually shrouded in half-darkness; this obscures spaces and blurs the edges of forms, making them less clear and discernible. The rich surface decoration inside the palaces [46], whether figural or abstract in content, because of its extent and even tone, is difficult to read just as the Ajanta frescoes are. The cusping of an arch disintegrates a potentially severe form into a less distinct one. The contour of a cusped arch is not a firm line, as is that of a Roman or Gothic arch, but an ambiguous one: it is an agitated line, suggesting a smoother curve which it ripples across but never follows. It breaks up the intense light which falls



46. Bikaner Palace; the Anup Mahal (built 1669–98; decorated late 18th century)

47. Khajuraho; the Kandarya Mahadev temple (c. 1000)

on it and creates a more varied pattern of shadow. This effect is achieved with particular success again in the Badi Mahal of the Udaipur *garh* palace, where the arcades of cusped arches and the foliage of the trees have the same effect of fragmenting the sunlight [*ix*].

The half-darkness, the rich surface decoration and the cusped arches all enhance the elusion, but would not of themselves create it. This is apparent from the total absence of the quality from Mughal architecture despite the presence there of these features. The absence of elusion from Mughal architecture is a result of the quite different treatment of plan and massing, and provides another point of distinction between the two styles. Elusion is, in fact, typically Hindu; it might be compared with the ambiguity of form found in temple architecture: a typical medieval temple is entirely covered with sculpture which obscures its form and creates another form [47].

In attempting to define the character of the Rajput palaces, many writers speak of their 'mystery' or 'romance'. Percy Brown attempts to grasp it:

> there is something more than architecture in these palaces of the Rajput princes, these fanciful Pavilions . . . emblematic of the old-world traditions of their race . . . every stone is touched with the spirit of romance.[28]

What Brown and others are describing is what is here called elusion, but they have not suspected that it is a deliberate architectural effect, achieved by devices which are susceptible to analysis. And they are experiencing it as much as describing it: their use of words like 'mystery' and their inability to define this 'something more than architecture', suggest that they are baffled by some quality of the palaces, that they feel eluded in some way. Their very confusion marks the success of the palaces' builders.

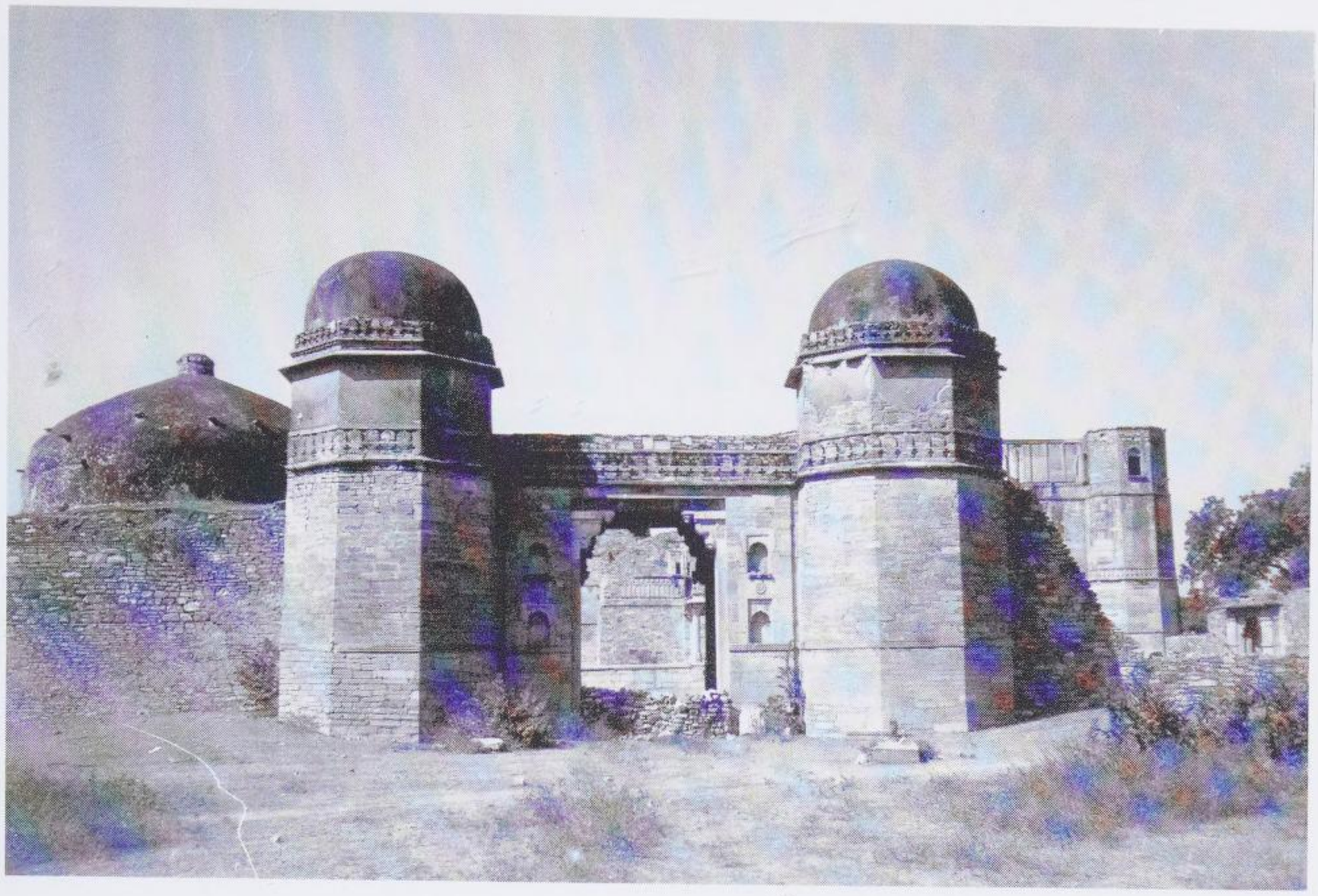
THREE

CHITOR: In Medias Res

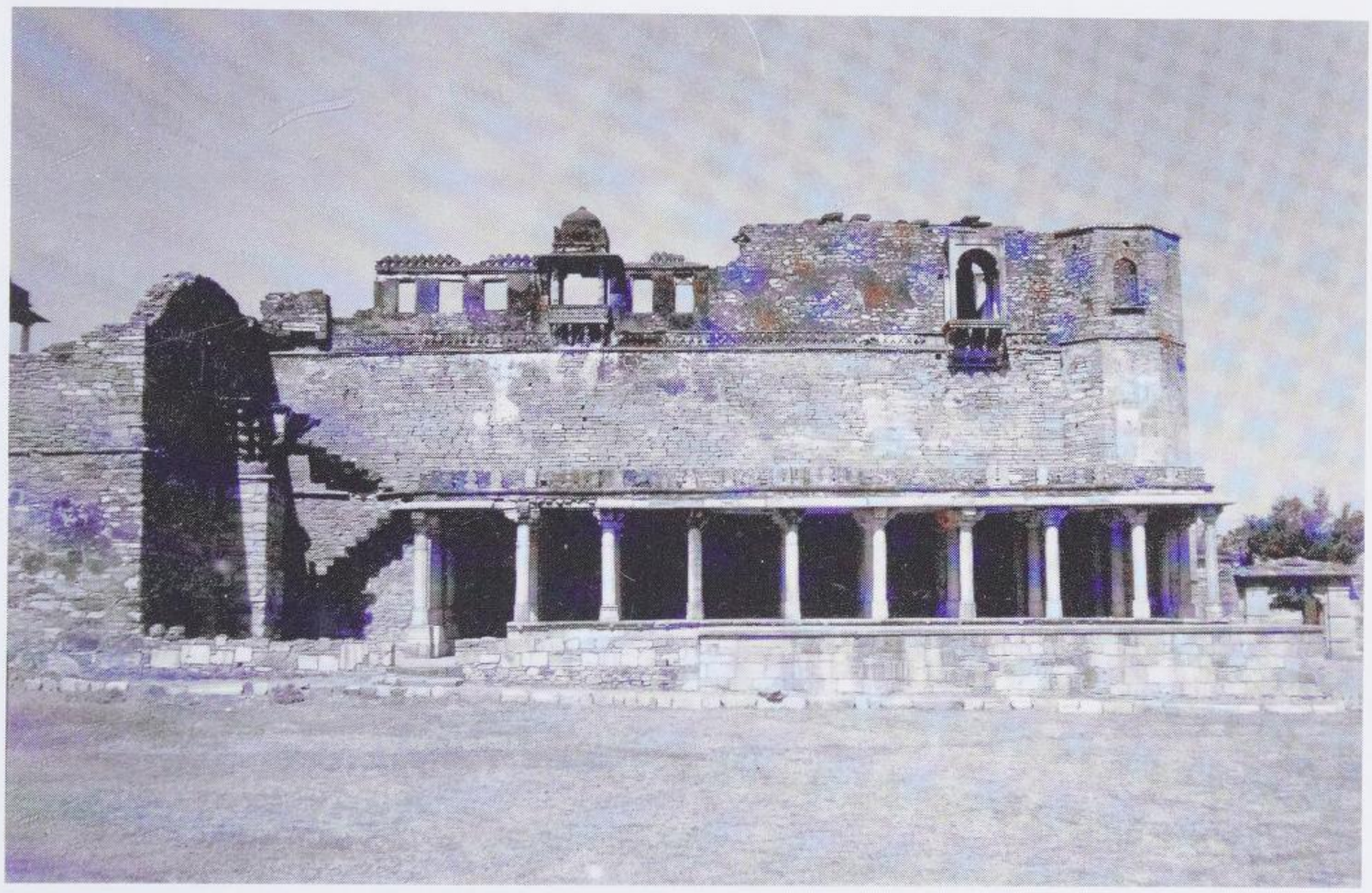
The rock of Chitor, over three miles long, up to half a mile wide and rising abruptly to 500 feet above the surrounding plain, is the repository of much of the history and legend by which the Rajput character and ethic are defined. It was taken by the Guhilots (later called Sisodias) early in the eighth century.[1] This clan claimed descent from the sun and was acknowledged as chief among the Rajput clans; and the fort which entirely covers the crown of the rock was for eight centuries not only the capital of the state of Mewar but the centre of Rajput polity in general. Much of what is established with certainty about Chitor's history, and many of the legends, relate to the three sacks which it suffered: the first in 1303 by Ala-ud-din Khilji of Delhi, the second in 1535 by Bahadur Shah of Gujarat, and the third by Akbar in 1567.[2] After the first two sacks the fort was swiftly recovered by the Rajputs; the third finally broke it, for although it later returned to Rajput hands, it never again served as a capital.[3]

Great antiquity is claimed for some of the ruins and temples within the fort, but there is no palace surviving from a period earlier than the reign of Rana Kumbha (1433–68). The palaces attributed to Bhim and Padmini, victims of Ala-ud-din's siege, are in fact late nineteenth-century re-creations in the modern style [48];[4] consequently little can be deduced from them about the style around 1300, beyond noting

48. Chitor; Padmini's retreat and (left) the palace of Bhim (c. 1300, rebuilt c. 1880)



49. Chitor; the Tripolia before Rana Kumbha's palace (1433–68)



50. Chitor; part of the south front of Rana Kumbha's palace, showing the Sabha (1433–68)

that Padmini's island retreat shows that there already existed at this early date the idea of siting a pleasure palace in the middle of a lake – an idea developed with such splendour in the seventeenth and eighteenth centuries in Udaipur, Mewar's subsequent capital [*xiii*].

The oldest authentic palace is that of Rana Kumbha,[5] situated on the west side of the fort, about a mile from its north end. The palace is approached through two gateways to the east, an axis chosen out of deference to the celestial ancestor. The first gate is the immense Badi Pol; the second is the more modest Tripolia, not three bays wide as that name usually implies, but three bays deep [49]. The gates lead into a large open space to the south of the palace and to the Darikhana or Sabha, a low hypostyle hall attached to the east end of the south front [50,

51. (facing). Chitor; a plan of Rana Kumbha's palace (from a plan by G. T. Williams, published by Fergusson, 1876): *a* – Tripolia; *b* –elephant shed; *c* – Sabha; *d* – stables; *e* – *zenana*; *f* – court identified by Fergusson as the *zenana*; *g* – Kanwar Pade ka Mahal; *h* – fort rampart

10]. These, the most accessible, were also the most public parts of the palace, serving respectively as a parade ground and a council chamber. The Sabha conceals the main entrance in the south facade to the private apartments: a small doorway in the back of the Sabha gives access to a flight of stairs which leads up into the body of the palace.

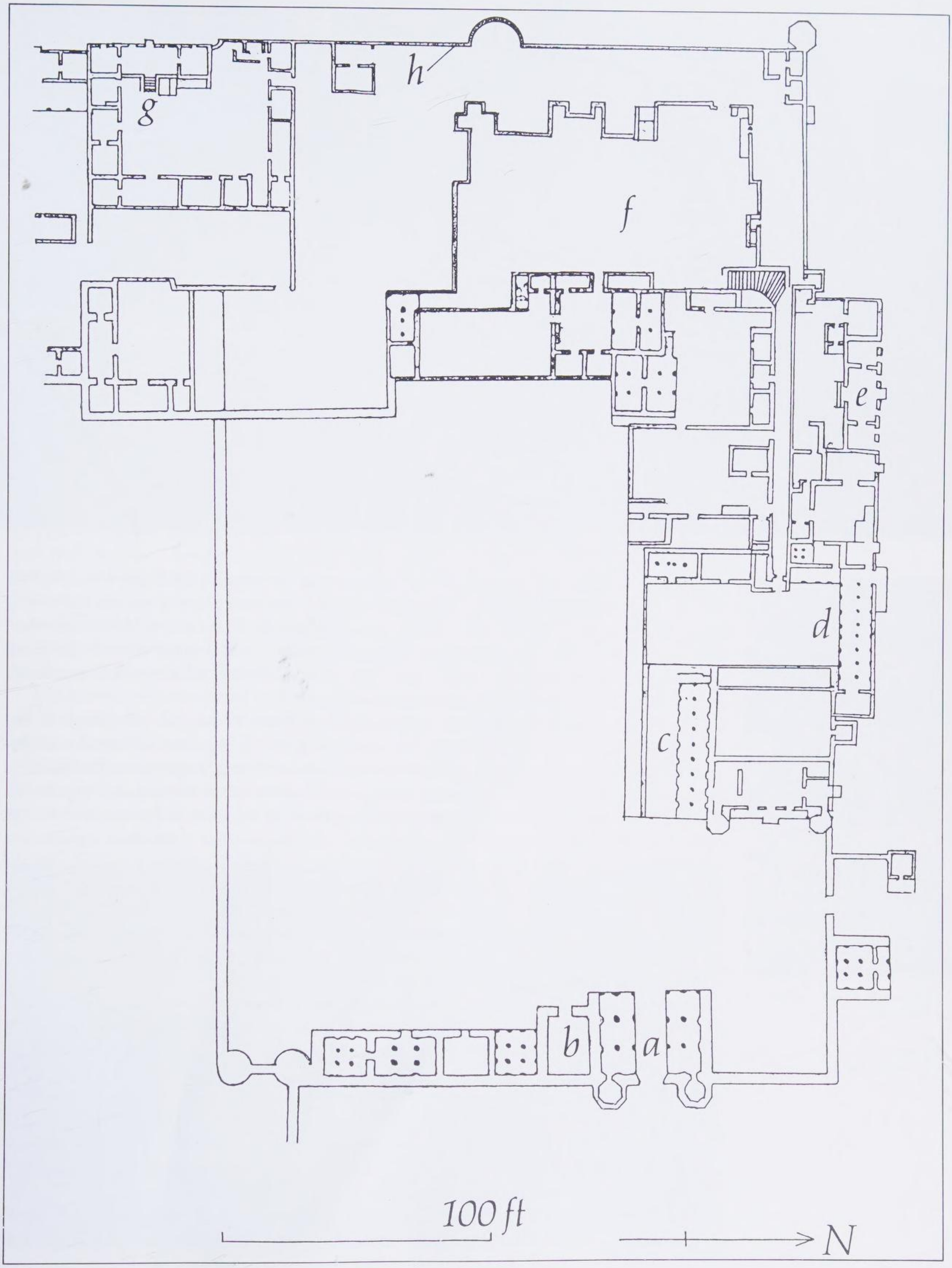
The north front is better preserved than the south, and is remarkable for the profusion and arrangement of its balconies [*i*]. Each balcony consists of a rectangular cradle, cantilevered out and surmounted by a canopy which is supported on short columns – the whole executed in richly carved stone. The balconies are arranged one above the other, in vertical groups, so that they form continuous rather than isolated projections from the facade.

The north front also affords an example of one of the most distinctive features of Chitor architecture. The top of the wall is not a straight line; it rises and falls in short steps. The effect of this stepping is to give the front a varied skyline, but also to make it appear unsubstantial (even taking into account its partly ruined state). An uneven line cannot have been met by a single roof, so that the wall formed no corner and was deprived of the usual role of defining volume and mass. From the inner face of the wall it is evident that the palace had a flat roof at a low level and that the upper portion of the wall served as a screen protecting a roof terrace.

The palace is constructed of dressed stone, but even so was originally covered with stucco, of which patches survive on the north front. Other exterior surface decoration includes broad sculpted bands serving as string-courses, and large flower-head bosses.

52. Chitor; the Kanwar Pade ka Mahal (c. 1450)

The interior arrangement of the palace is generally irregular, but one portion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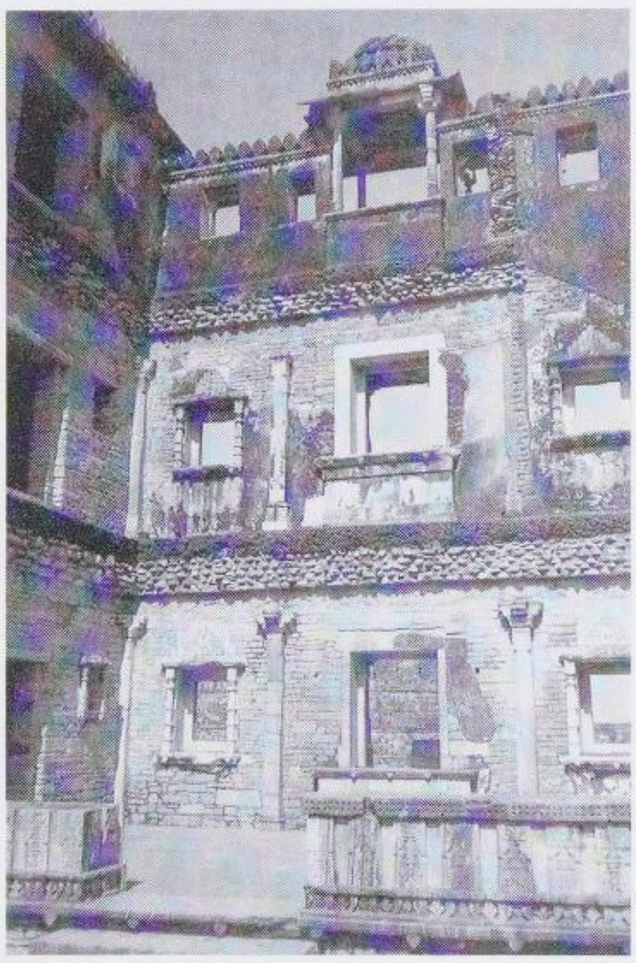


53. Chitor; the north-western apartment in Rana Kumbha's palace

54 (top). Chitor; the east front of Rana Ratan Singh's palace (1528–31)

of it, in the north-west corners of the palace, is regular in itself [53]. Here a rectangular block is flanked by two towers. The towers had three storeys, each storey consisting of a single square chamber (the floors have collapsed). The central block consisted of two rectangular chambers, one above the other, and a roof terrace. In front of the whole apartment is a small *chowk* (or courtyard) and the apartment is entered by means of a short flight of steps from this *chowk*.

The largest surviving portion of the Kanwar Pade ka Mahal, or palace of the heir apparent, slightly to the south-west of Rana Kumbha's palace, echoes the arrangement of this corner exactly [52]. In each palace surviving fragments of *jali* screens in the outer openings of this distinctive area indicate its use as the women's quarters. This refutes the usual but unsupported identification of a building attached to the west end of Kumbha's palace as the *zenana*,[6] and shows that Kumbha's *zenana* was incorporated into the main body of the palace. In both Kumbha's palace and the Kanwar Pade ka Mahal, to the right of the steps leading into the women's quarters, is a large niche with a corbelled arch ceiling, which could only have served as a sentry box. The women were therefore apparently guarded within the palace, just as the *jali* screens protected them from the outside world; but even so their apartment is unusually closely integrated with the rest of the palace.[7]

The remaining apartments of Kumbha's palace are less regular than the *zenana*, both in themselves and in their relation to each other [51]. A curious feature is the street: a long, straight and uncovered passage running along the east-west axis of the palace, and making it seem more like an aggregate than a single structure. The Surya Gokhra at the extreme east end of the palace, built of green stone, is a later addition. In order to afford it greater protection and to provide storage space, the whole palace is raised on a vaulted substructure. Despite this evident knowledge of the arcuate system, the residential parts of the palace are predominantly trabeate in construction, with small, simplified temple columns.

The vocabulary of forms employed in this building is limited and relatively pure, in the sense that it is mostly derived from the Hindu tradition. Apart from the

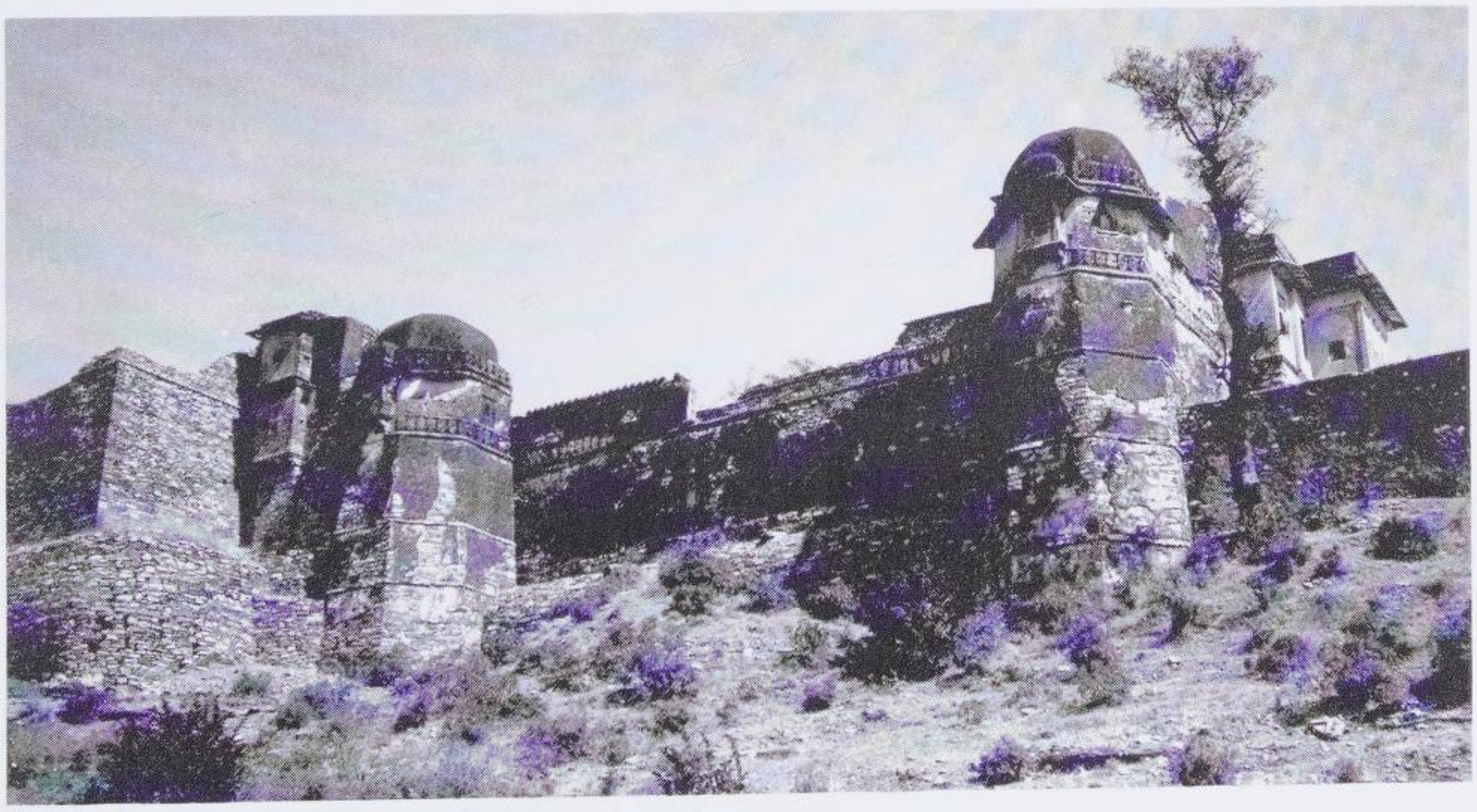
motifs already referred to – such as the temple columns, the *jarokhas*, the *jalis* and the flower bosses – this Hindu vocabulary also includes the richly carved brackets and corbels (supporting some of the balconies) and the *chajja*, here used not only as an eave, but also between the storeys as part of the string-course. All these forms are to be found in almost any Hindu or Jain temple of the medieval period or later; some examples within a few hundred yards of Kumbha's palace are the eleventh-century Jain Sat Bis temple, and the temples built by Kumbha himself, the Mira Bai temple (c. 1440) [*ii*] and the Kumbha Shyam (1448). In the temples, the features are applied in a somewhat different manner: they are intermixed with profuse decorative carving depicting religious subjects, and there is a greater concern for symmetry and a heavier massing of forms.

Despite the fundamental dependence on temple traditions, some indications of that eclecticism which was to develop and shape the Rajput style in the ensuing centuries are also already present here. The vaulted substructure is one example. Others are the domes and such minor details as the small ogee arches in a central kiosk. These details have been borrowed from contemporary sultanate architecture, such as that of Malwa.

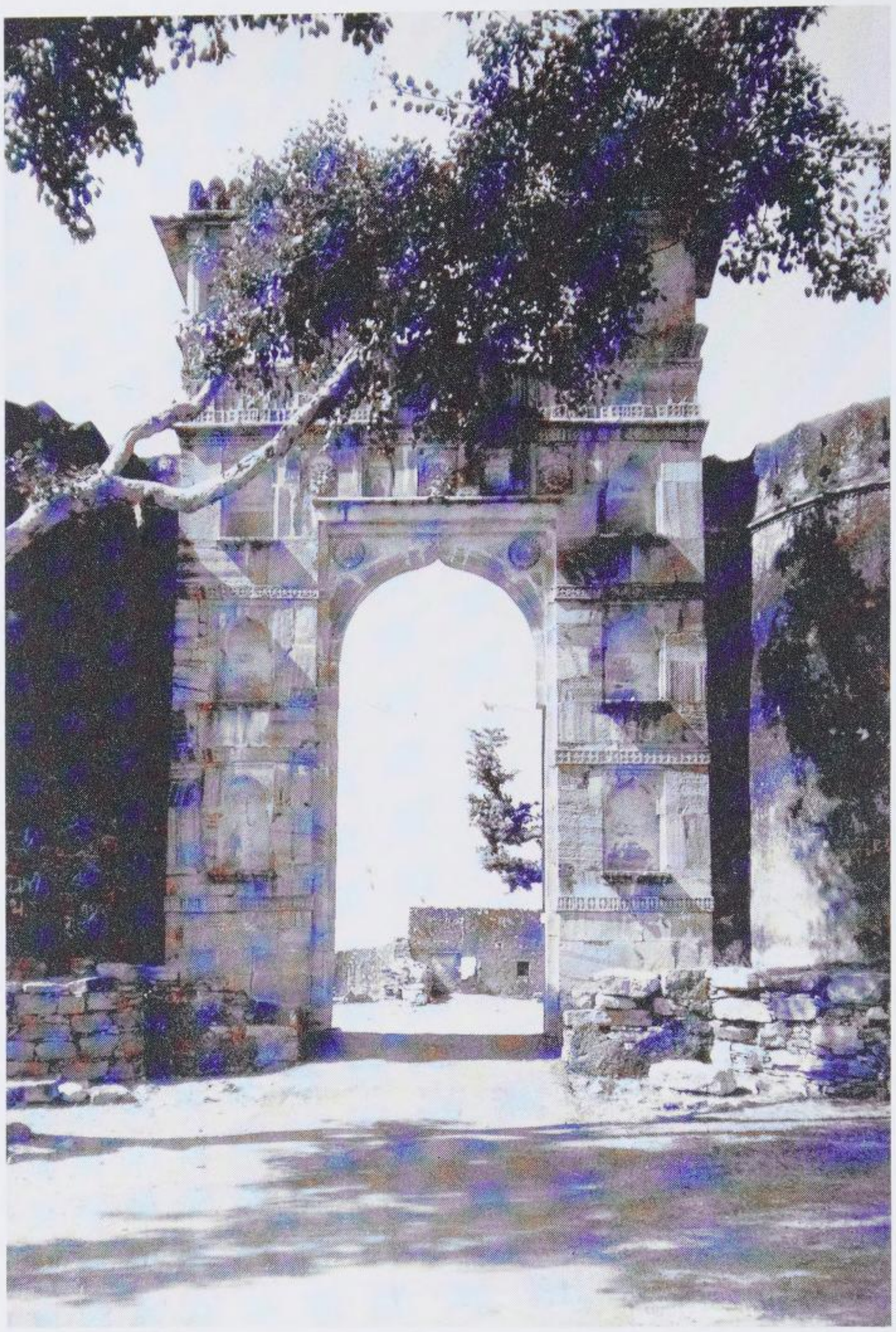
The next important palace to be built at Chitor was that of Rana Ratan Singh II (1528–31) near the north end of the fort, on the west bank of the small Ratneshwar Lake.[8] This palace employs much the same vocabulary of forms as Rana Kumbha's palace, but differs from it in its more regular overall plan and exterior massing [54]. Kumbha's palace is only roughly rectangular in overall plan and its massing is quite irregular. Ratan Singh's palace was originally perfectly rectangular in plan and enclosed by a single, continuous, high wall [55]. The wall was punctuated by massive towers, one at each corner and in the centre of each of the longer sides. This regular form is perhaps less evident now than it might be because the palace is much ruined and altered; in particular, a gallery and balcony have replaced part of the wall between the two southernmost towers of the east front. But the original form can still be readily deduced.

The towers are octagonal in base, articulated by string-courses and crowned with squat round domes; in other words, they imitate the bastions flanking the Tripolia of Rana Kumbha's palace [49], except that a slight taper has here been introduced.

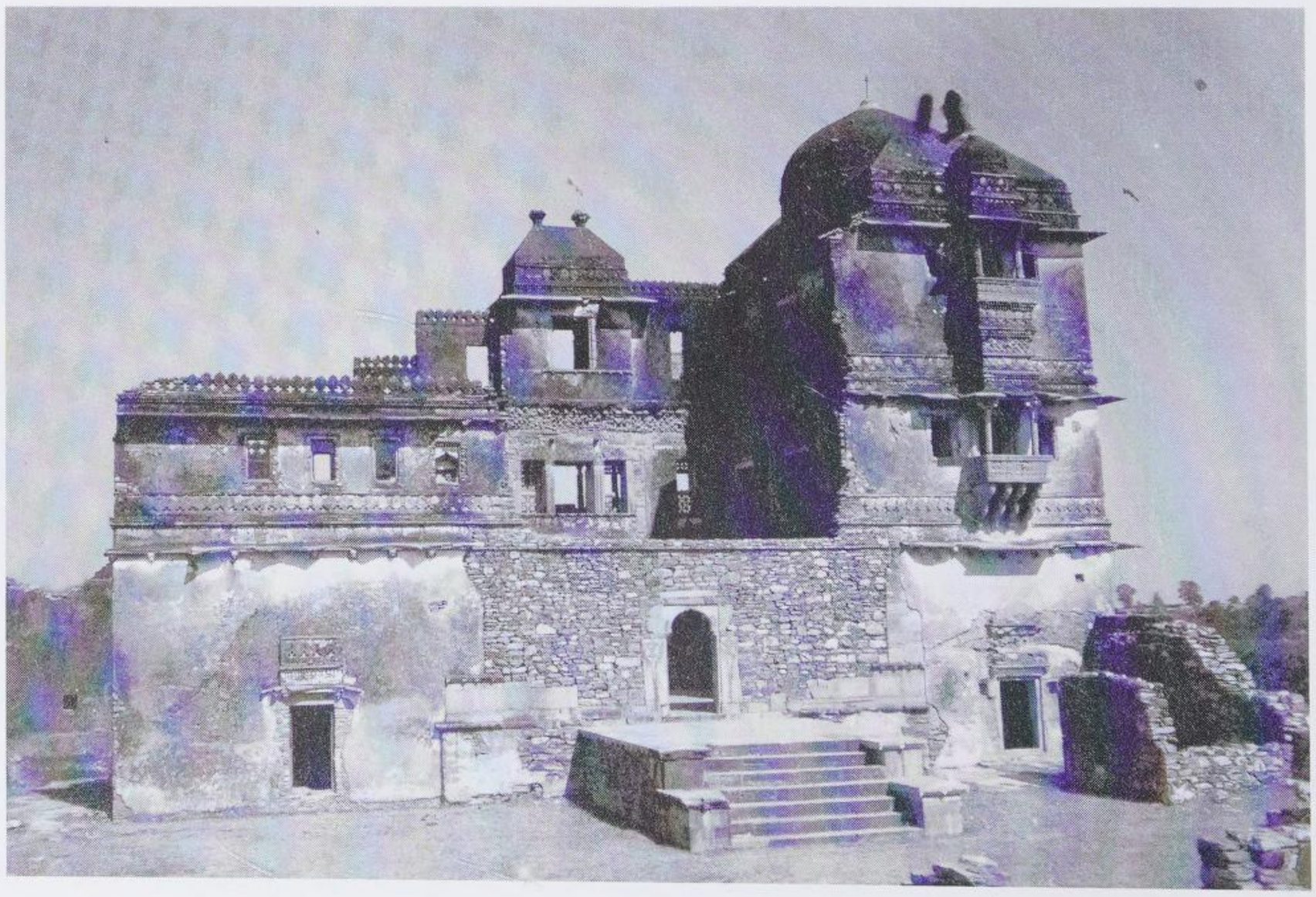
The interior arrangement of Ratan Singh's palace by contrast, was never symmetrical or regular: like Rana Kumbha's palace it is a maze of small apartments. Again, it now appears much ruined and altered; the southern portion was evidently converted



55. Chitor; the west front of Rana Ratan Singh's palace



56. Chitor; the main gate of Rana Ratan Singh's palace



57. Chitor; Patta's house, from the south (c. 1560)

into a *zenana* at a late date. The entire palace is constructed of roughly hewn stone; traces of an original plaster covering survive.

The ogee pointed arch, introduced cautiously in Kumbha's palace, is here used extensively and at the expense of temple columns and lintels, showing how once a new form has been introduced it can come to replace the more traditional one. This is most strikingly demonstrated by the gateway [56] which gives access to a small, walled compound at the south of the palace. The gate has a tall structural arch, of ogee form, in strong contrast to the archaic, trabeate gates of Kumbha's palace. Indeed with its high ogee arch, its flanking niches and its generally square and rather flat aspect, this gate of Ratan Singh's palace anticipates the principal entrance of the Govind Mandir at Datia, a palace with which Ratan Singh's palace finds another affinity in its regular plan.

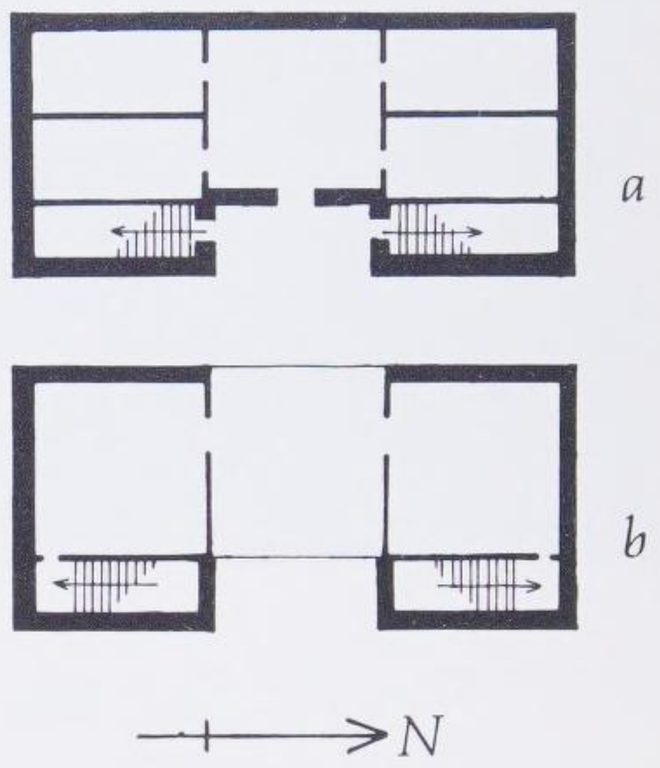
That the disparity in treatment of planning between Kumbha's palace and Ratan Singh's palace is not a function of time, is evident from a comparison of the palaces of Patta and Jaimal. The noblemen Patta and Jaimal were two of the heroes of the siege of 1567 and their palaces, amongst the last monuments to be built in Chitor before the Sisodias lost it, stand together on the west side of the fort, half a mile to the south of Kumbha's palace. But despite being adjacent and contemporary, these two palaces exhibit very different treatments of planning.

Patta's palace is a faithful imitation of that part of Kumbha's palace identified above as the *zenana*, re-created as a free-standing house [57]. Like the part of the Kanwar Pada ka Mahal referred to above, it follows the same arrangement of rooms. It echoes even such details as the short flight of steps before the entrance; and the decoration, too, is similar, though slightly richer. The north wall is stepped at the top, as on Kumbha's palace, and on the inner face of the wall there is a simple staircase cantilevered from it [58]. This staircase leads from the roof terrace to a high balcony, and the stepped wall protects the staircase as it rises.

Jaimal's palace is quite different in conception. On the exterior it is a regular, solid block [59]. Its blank walls have no openings except for a centrally placed door, and are relieved only by simple string-courses which suggest three storeys (there are in fact only two). The central portion of the main, or east, front is somewhat recessed and the walls have a slight batter; but otherwise there is no deviation from a cuboid form. The ground storey consists of a large, central chamber flanked by four small ones, two on each side; on the upper storey, reached by means of enclosed

59. Chitor; the east front of Jaimal's house (c. 1560)

60. Chitor; a sketch plan of Jaimal's house (not to scale): *a* – lower storey; *b* – upper storey

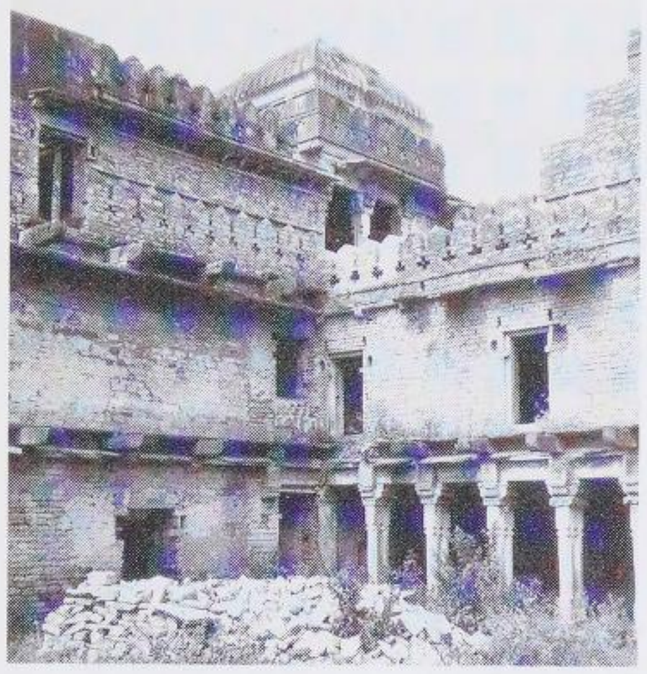


58. Chitor; the stair on the high-level court in Patta's house

stairs on the front of the building, a roof terrace is flanked by two chambers [60]. All of the chambers have vaulted ceilings. The palace is entirely without decoration, though it had, like the other palaces, a coat of plaster. It demonstrates that even amongst the oldest surviving Rajput palaces, perfect symmetry of plan and massing is not unknown.

Though rather different from the other Chitor palaces, Jaimal's palace uses no forms which are not found in the others, so that there is a limit to the extent to which it is exceptional. And between the other palaces there is a remarkable uniformity of style despite the disparity in dates. Between Rana Kumbha's palace in the mid-fifteenth century and Patta's house, built a century later, there was no significant development in the Rajput style in Chitor. Given the lively developments of architecture in adjacent regions of India in the same period, this can only reflect a deliberate resistance to change; and indeed the same conservative spirit was to persist for a brief time at the new capital, Udaipur.

62. Chanderi; the Naukhanda Mahal (c. 1520)



The few other secular structures which survive in Chitor from the period of the palaces,[9] though somewhat ruined, can be seen to exemplify the same architectural style; they include the house of Bhama Shah (c. 1560),[10] a quarter of a mile to the north of Rana Kumbha's palace. And this style is not confined to Chitor. The palace of Rana Kumbha's contemporary at Gwalior, Raja Kirtti Singh (1454–79), is rather smaller than Kumbha's palace but in the same style [61]. A greater effort has been made at overall symmetry – an effort thwarted by additions to the north end of the palace – but the forms employed are the same. The slightly later palaces built at Gwalior by Raja Man Singh Tomar (1486–1516) drew on wider sources for inspiration and so modified the style [11].[11]

Two other buildings which closely echo the Chitor style are the palaces built in Chanderi in about 1520 by Medini Rao. Chanderi was the northern capital of Malwa, the state bordering Mewar to the south and east. Malwa had been an independent Muslim sultanate since the beginning of the fifteenth century. The early sixteenth-century sultan, Mahmud Shah II (1511–31) appointed a Rajput, Medini Rao,

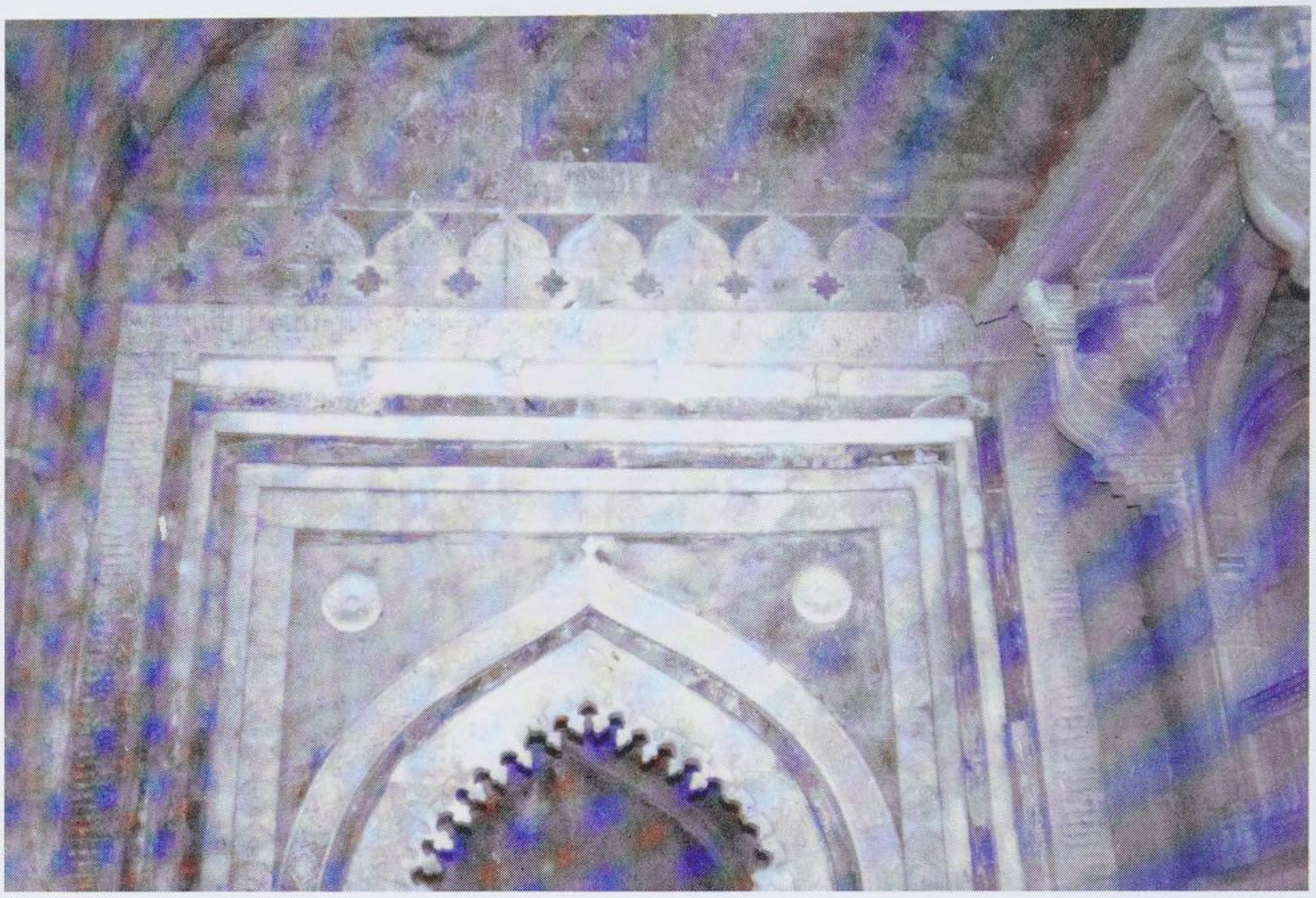
61. Gwalior; the east front of the Kirtti Mandir (1454–79)

i. Chitor; the north front of Rana Kumbha's palace (1433–68)

as governor of Chanderi, while he himself remained in the state's southern capital, Mandu. However, in 1518 Chanderi was taken by the Delhi sultan, Ibrahim Lodi. The powerful Rana Sanga of Chitor (1509–28), seeing a Rajput slighted, promptly took Chanderi and conferred it on Medini Rao. Medini Rao then ruled Chanderi in his own right from 1519 until 1528, when the new emperor, Babur, reclaimed it for the Delhi sultanate.[12]

Most of the surviving monuments of Chanderi are Islamic in function – they include mosques and tombs. They date from the fifteenth century, and in style they are derived from the monuments of the main capital, Mandu. However, within the fort are two palaces, the Naukhanda Mahal [62] and the Hawa Mahal, which are attributed to Medini Rao and which are similar in style to the palaces of Chitor. The Hawa Mahal was converted into a mosque, perhaps by Babur, and both palaces are somewhat ruined; but enough of them remains to assess their style. Their trabeate construction, temple columns, small domed kiosks and square openings are clear hallmarks of the early Rajput style.

It is possible that this early Rajput style, typified by the Chitor palaces, had, between the mid-fifteenth and mid-sixteenth centuries, a much wider distribution than now appears, and that it was common throughout the entire Rajput region. It is difficult to test this hypothesis. It was ironically the enforced abandonment of Chitor in 1567 which ensured the survival of its palaces; in other Rajput capitals, not then abandoned, such early buildings were destroyed in order to make space for new ones. Consequently, few Rajput buildings contemporary with those of

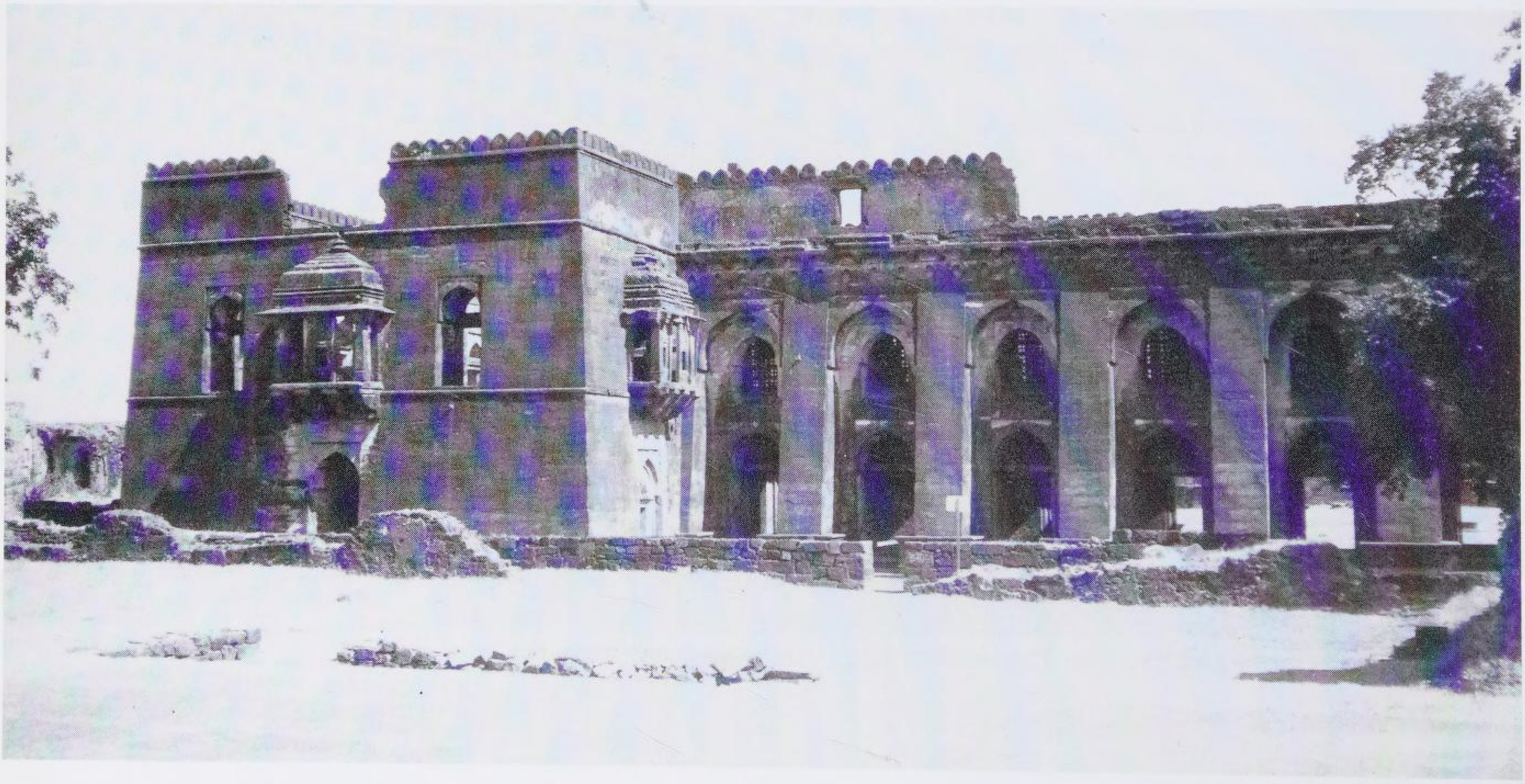


63. Mandu; the *qibla* wall of the Jami Masjid (1440)

Chitor survive to be compared with them. But the palaces of Kirtti Singh and Medini Rao are among the few which do remain and these certainly are the same in style. On the other hand the palaces of Man Singh Tomar at Gwalior, being contemporary and slightly different, show that the Chitor version of the style was not comprehensive even if it was prevalent in this period.

Related to the question of the distribution of the early Rajput style, is the question of its sources. One obvious source is the Indo-Islamic architecture of the period. In the fifteenth and early sixteenth centuries the region occupied by the Rajput clans was bordered by independent Muslim sultanates, including Malwa and Delhi

64. Mandu; the Hindola Mahal (c. 1425)

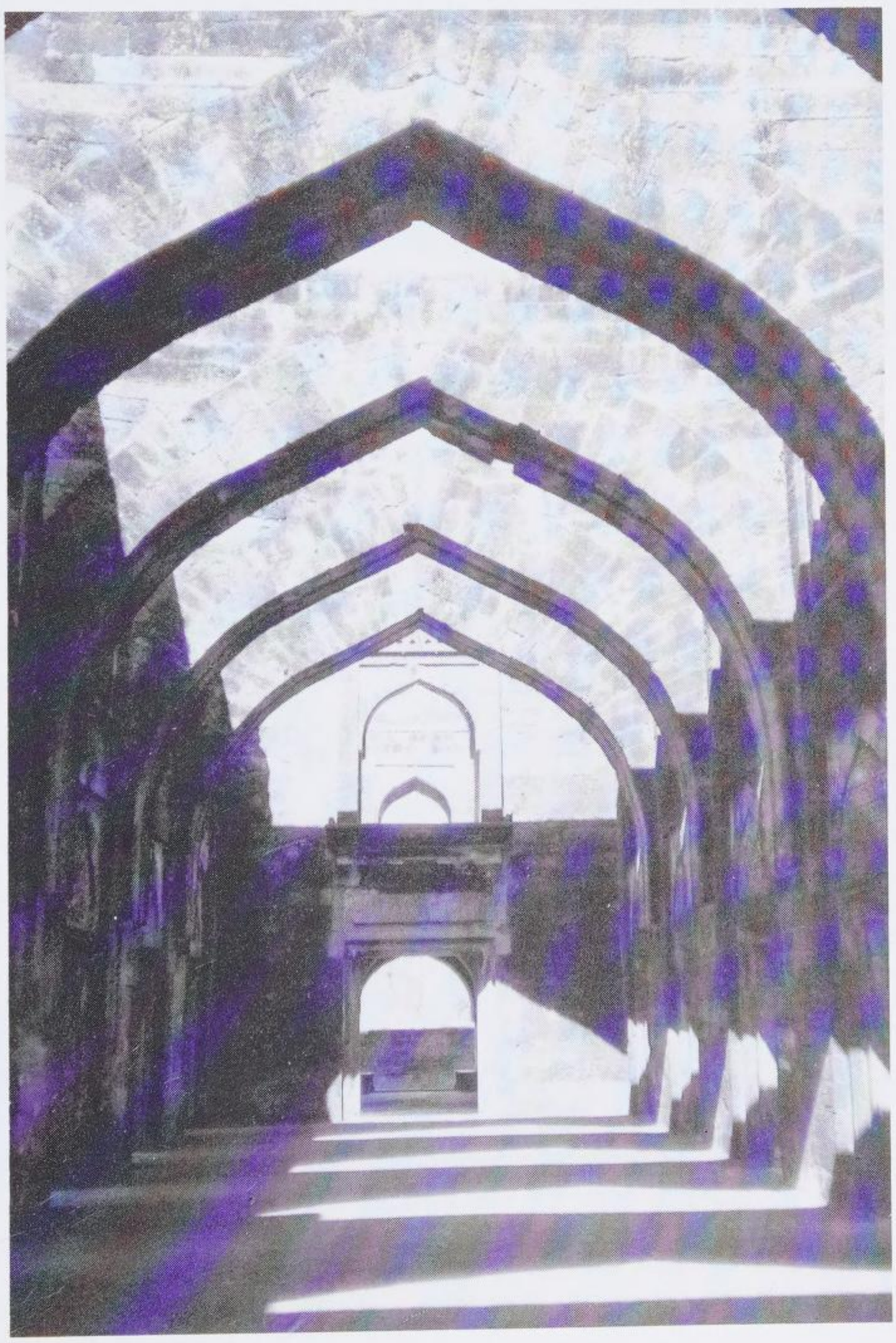


(in the course of the sixteenth century these sultanates were absorbed into the Mughal Empire). The importance in particular of the buildings of Mandu (the southern capital of Malwa) as an influence on the early Rajput style, is identified by Hermann Goetz. Indeed he considers this a sufficient account of the early Rajput style, asserting that

> The first palaces erected in Rajputana [including those] at Chitorgarh . . . are thus more or less copies of the 'late Pathan' architecture of the 15th and early 16th centuries, mainly of Mandu.[13]

It is true that the palaces of Chitor owe something to the architecture of Mandu: the domes of various shapes and the ogee pointed arches can be traced to such monuments as the Jami Masjid (1440) and the Jahaz Mahal (c. 1460) at Mandu [56, 63]. And the use in the Chitor palaces of the structural arch – albeit sometimes covert – is a mark of the influence of early Indo-Islamic architecture as a whole. But that is the full extent of the Islamic influence. For the other details of the Mandu buildings which seem to prefigure the Chitor style – such as the projecting balconies of the Hindola Mahal (c. 1425) [64] – are in fact indications of the dependence of Indo-Islamic architecture on Hindu temple architecture, a dependence shared by the buildings of Chitor. The few true instances of Indo-Islamic influence on Chitor hardly justify Goetz's assessment.

Goetz has overlooked not only the many Chitor forms not derived from Mandu, but also the fundamentally different aims of Rajput and Indo-Islamic architecture



65. Mandu; the interior of the Hindola Mahal (c. 1425)

ii. Chitor; Mira Bai's temple (mid-15th century)

in this period, which any comparison of the buildings swiftly reveals. In sultanate architecture, whether of Malwa or Delhi, surfaces are often plain, and even when they are decorated the pattern is not allowed to obscure the purity of forms. The tomb of Hoshang Shah (c. 1440) at Mandu, for example, is an essay in pure goemetry: a vast, plain dome rests on a square chamber which has the minimum of openings [43]. In the Hindola Mahal the simple, powerful form of a pointed arch is given greater force by close repetition along a single axis [65]. In Delhi the tombs of the Tughluq and Sayyid sultans are obsessively symmetrical, as if only through symmetry could the required perfect balance be achieved [24].

All of this is at a far remove from the muddled facade of Rana Kumbha's palace, with its rich decoration and exaggeratedly varied skyline [*i*]. Neither is it much closer to most of the other buildings of Chitor, sometimes more ordered but no less richly decorated. Jaimal's palace is an exception, but a unique one: habitually the architects of Chitor relished complexity and detail; their impulse was to decorate more than to form, and they indulged that impulse liberally. Their approach could not be more different from the intellectual rigour of the contemporary sultanate architects, and the resulting architectural styles are correspondingly different.

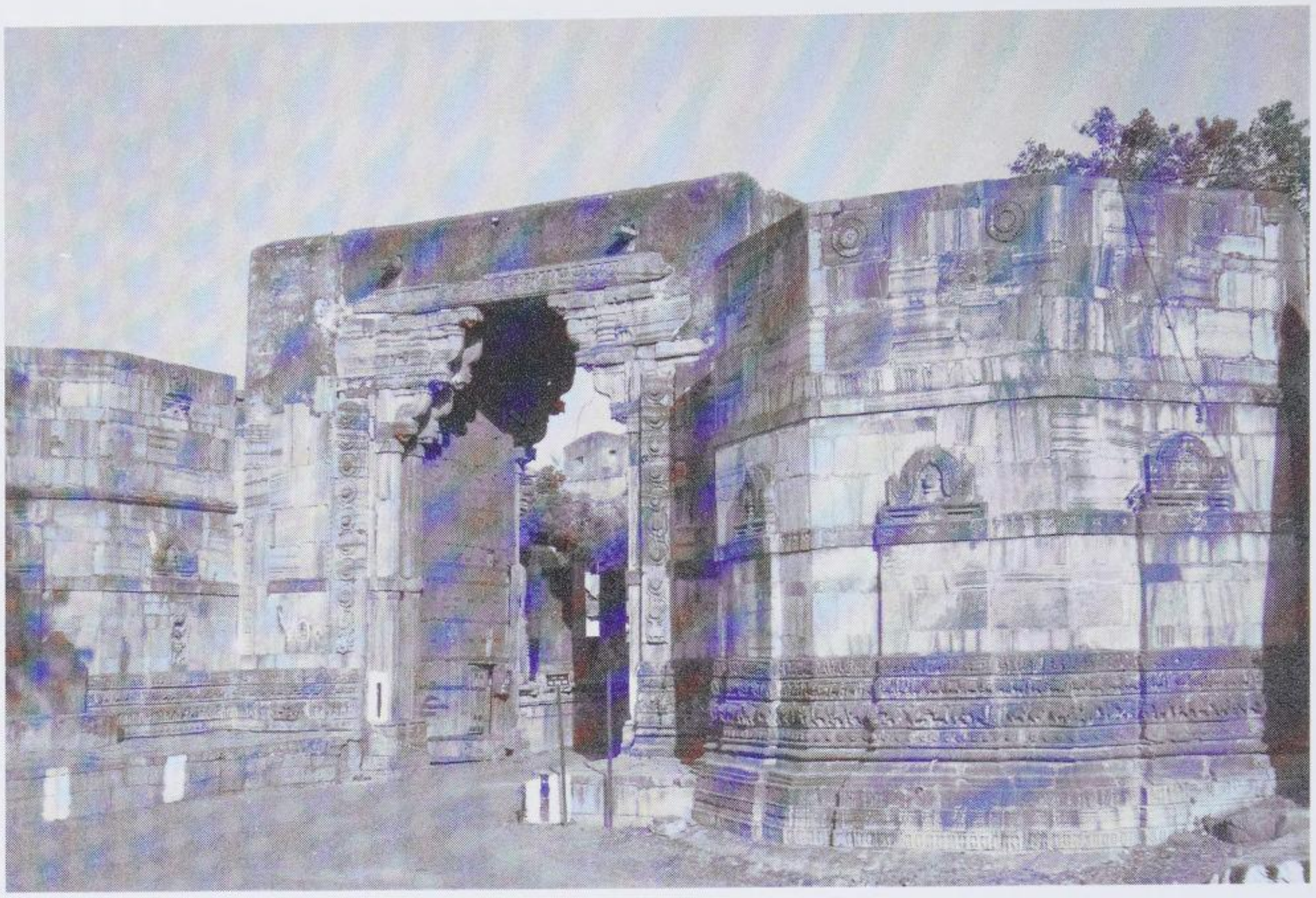
This distinction gives a clue to the true origins of the Rajput style, for the approach to architecture shared by the Chitor architects might otherwise be described as the

single most enduring characteristic of the Hindu tradition. The palaces of Chitor are among the oldest Rajput – and indeed generally Hindu – palaces to survive intact, but they were not the first to be built. That they might not represent the beginning of a new tradition but rather the continuation of a long-established one, is an obvious enough idea, but it is not one which has ever been investigated.

Such an investigation might begin with the ruins of more ancient buildings in Chitor itself, but these provide little help since most of them are too thoroughly ruined to permit any analysis of style. The single ruin which does help is one situated to the south of Patta's palace, known as the house of Chonda [66]. Chonda was the son of Rana Lakha (1382–1421), but he renounced his claim to the *gaddi* in favour of his half-brother, Mokal. Among the surviving fragments of the palace attributed to Chonda[14] is a tower, standing at the north-west corner of the building. The tower has three storeys, each of which consisted of a single square chamber, and the whole tower was integrated into the mass of the palace. In all these details the tower anticipates the similar features found in Rana Kumbha's palace, the Kanwar Pade ka Mahal and Patta's palace; and so it carries the style back another half-century to about 1400. However, even with this tower a purely Hindu secular tradition has not been discovered, for like its successors it is crowned by an Islamic dome.

Though there are no older Rajput palaces than this, there are a few Rajput secular structures of other types surviving even from the medieval period. The best preserved of these are the gates of Dabhoi in Gujarat. Dabhoi was fortified by the Solanki

66. Chitor; Chonda's house (c. 1400)



67. Chitor; the Ram Pol (1459)

Rajputs in about 1100 AD. Each of the gates has a corbelled arch; that is, a shape comparable to an arch, formed by two series of cantilevered slabs, surmounted by a lintel. The corbels are entirely covered with decorative carving and the flanking walls of the gate are comparatively plain. In 1459 Rana Kumbha built the Ram Pol, the gate at the top of the ascent road to Chitor fort [67]; in form, method of construction and decoration, this gate is very like the gates of Dabhoi, built over three and a half centuries earlier. There is no way of telling whether the Ram Pol is an imitation of the Dabhoi gates, or an imitation of other gates which were like them and contemporary with them, but which have not survived. Either way, the correspondence suggests a continuing architectural tradition reaching back to the early period of Rajput history.

It may be noted in passing that this relation between Rajasthan and Gujarat did not persist. With the emergence of a Muslim central authority in Gujarat at the beginning of the fifteenth century, the style was there adapted to the construction of specifically Muslim types of building, such as mosques and tombs [23, 37], whereas in Rajasthan it continued to be applied to Rajput types of building. Also the style did not develop in the same way in the two regions, for in Gujarat it was remarkably static and provincial, whereas in Rajasthan it was more dynamic and eclectic (in spite of its slow start in Chitor). Consequently the architectural style practised in Gujarat from about 1400 is quite distinct from the architecture of Rajasthan, even though they seemingly share a common origin in a medieval Rajput style. It is for this reason that the architecture of Gujarat is not discussed further here.

For a knowledge of secular Hindu buildings earlier than the medieval period we must rely on written accounts and pictorial records. The descriptions of the palace of Harsha (seventh century) given in the *Kadambari* and *Harshacharita* by Bana Bhatta, distinguish between the inner and outer regions of the palace.[15] The inner region, Bana explains, was where the raja rested, and apart from his private apartments it contained a council chamber where he conversed with his ministers and women. The outer region consisted of a *sabha* in a courtyard and was accessible to the public. As shown above, the *sabha* of Rana Kumbha's palace was similarly accessible and it stands outside the main body of the palace, which contains the private apartments

of the raja and of the women. Furthermore this division between public and private areas of the palace was maintained throughout the ensuing development of Rajput palace architecture.

The same distinction between inner and outer parts of the palace is made by the Hindu architectural treatise known as the *Manasara* (c. 500–700 AD); and other *sastras* refer to an *antahpura*, or inner area, though they count it as one among many parts. The *Manasara* prescribes that the inner part should contain a private council chamber and the women's quarters, and that the outer part should contain a hall of public audience.[16] This shows, incidentally, that the *diwan-i-am* and *diwan-i-khas* of later Rajput palaces continue ancient Hindu institutions and owe only their names to Mughal influence. The original Sanskrit names (*sabha niwas* and *sarvato bhadra*) fell into disuse during the Mughal period when many Rajput courts adopted Persian as a court language in order to facilitate dealings with the Mughal court; in Jaipur, which was built during the period of Mughal decline, the Sanskrit names were revived, recalling the pre-Mughal *sabha* of Chitor.

The *Manasara* also prescribes that the Kanwar Pade ka Mahal should also be outside the main palace, as indeed it is in Chitor. This treatise was evidently known in Chitor in the mid-fifteenth century: one of Kumbha's chief architects, Mandan, wrote his own treatise, the *Rajavallabha*, which is closely modelled on it.[17] It is not known whether Mandan was responsible for any part of Rana Kumbha's palace; it is known that he was the architect of many forts in Mewar, including Kumbhalgarh where he put some of his prescriptions into practice.[18]

Bana Bhatta also tells us that Harsha's palace contained such features as a garden with trees, a water garden, a bathing pavilion, a private royal temple and a *chitra shali* or picture gallery.[19] Although none of these features, with the exception of the private temple, is found in any of the Chitor palaces, they are all found in later Rajput palaces, of the seventeenth century and after. The architects of these later palaces cannot have known Harsha's palace itself since by the seventeenth century it would long have been ruined. But the appearance in Harsha's palace of the distinctive features listed demonstrates that they formed a part of the Hindu tradition; and when employing them in the seventeenth century, Rajput architects had this Hindu tradition on which to draw.

Even earlier than Bana Bhatta's writings are the celebrated frescoes of the Ajanta caves, two of which, painted about 500 AD, depict palace interiors [9].[20] Each of the palaces shown consists of a sequence of small spaces, alternately open and enclosed; the roofs of the enclosed chambers are supported by free-standing columns and the open spaces are planted with trees. The architecture is trabeate but distinguished from religious architecture by being more open, through employing lighter and finer forms. The palaces are furnished with low, cushioned seats. All of these details in combination make a by no means commonplace scheme; and they all prefigure aspects of the Rajput style of the mid-fifteenth to the mid-eighteenth centuries, again suggesting that that style had its roots in an ancient Hindu heritage.

Any account of the Rajput palace style must begin with the palaces of Chitor because no older Rajput palaces survive. But this is an accident of history and the Chitor palaces do not represent the beginning of the story. Unfortunately, there is now little trace of the palaces which marked the stages of development between those depicted in the Ajanta frescoes and Rana Kumbha's palace. Consequently the origins of the Rajput style within the Hindu tradition cannot be defined with much precision. But what is clear is that it is in the Hindu tradition that those origins lie; that although the Rajput builders sometimes looked outside it, still they could depend upon it for their major inspiration.

FOUR

GWALIOR: The Transformation of Sources

The Emperor Babur's account, in his diary, of his visit to Gwalior in the autumn of 1528 is concerned almost exclusively with the palaces of Raja Man Singh Tomar and his son Vikramaditya, buildings which greatly impressed Babur and which he explored thoroughly, despite a certain indisposition:

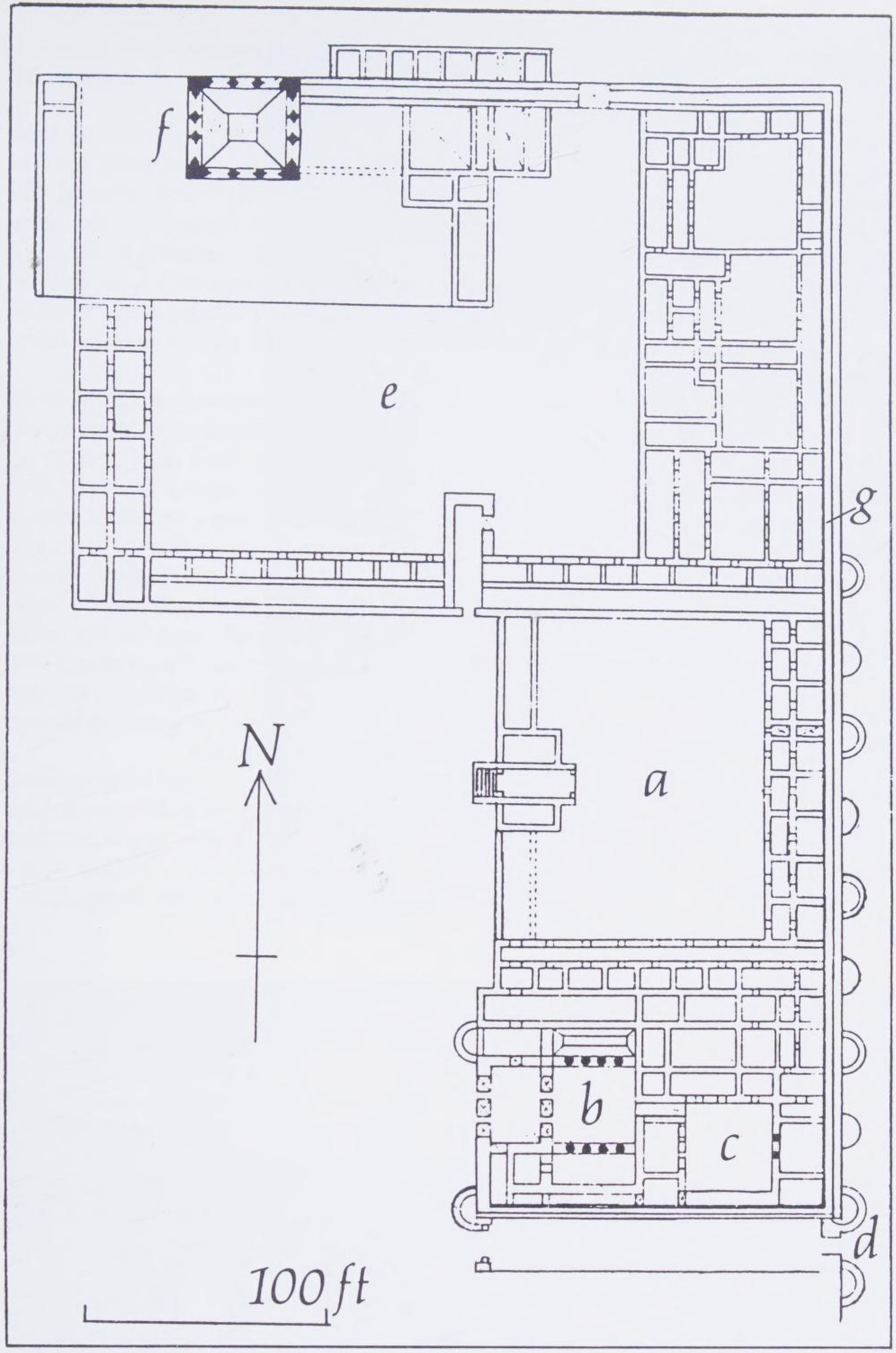
> Tonight I elected to take opium because of ear-ache; another reason was the shining of the moon . . . Opium sickness gave me much discomfort next day; I vomited a good deal. Sickness notwithstanding, I visited the buildings of Man Singh and Vikramaditya thoroughly. They are wonderful buildings.[1]

He thought that 'the son's buildings do not match the father's', but he found plenty to admire in Man Singh's palace, including the high cupolas and the painted tile-work on the exterior.[2]

These two palaces, which inspired Babur to an uncharacteristically long description, form part of a group of four built at Gwalior between 1460 and 1518. And this group itself represents only a fraction of the number of buildings which Babur could have written about, if he had chosen. The citadel of Gwalior had been inhabited perhaps since the sixth century, and certainly at least from the tenth century, for in about 950 AD a Hindu dynasty was founded there by Suraj Pal. When this became extinct in 1129 it was followed by the Parihari dynasty, which held the citadel until it was captured by the Delhi Emperor Iltumish in 1232. In 1398 Bir Singh Deo, a Tomar Rajput, took advantage of the turmoil caused by Timur's invasion and sack of Delhi, to recapture Gwalior from the Muslims. He became Raja of Gwalior and established the Tomar dynasty.

The Tomars controlled Gwalior until 1518 when Ibrahim Lodi successfully concluded a two year siege and won back the fortress for the Delhi sultanate. Man Singh, sixth successor to Bir Singh Deo, had ascended the *gaddi* of Gwalior in 1486 and died in 1516, just after Ibrahim's siege began. Man Singh's son, Vikramaditya, was thus deprived of his inheritance after only two years of rule. Later however, in 1526, he fought alongside Ibrahim against Babur at the battle of Panipat; he was killed in the battle[3] and although the line continued for some generations after Vikramaditya, the patrimony was never regained.[4] In the same year Gwalior was taken for Babur by Rahim-dad and it became one of the most important fortresses of the new Mughal Empire; except during the fifteen-year Sur dynasty interregnum, the Mughals held it consistently until the mid-eighteenth century.

During this long and varied history many buildings were erected in or below the fortress, including temples, tanks and both Hindu and Muslim palaces and tombs. This account, however, is concerned only with the secular buildings erected during the rule of the Tomar Rajputs. These are concentrated in the north-east corner of the fortress.



68. Gwalior; a plan of the Man Mandir and Vikramaditya's palace (1486–1516; drawn by Alexander Cunningham, 1865): *a* – servants' courtyard; *b* – outer courtyard of the royal residence; *c* – inner courtyard; *d* – Hathi Pol; *e* – Vikramaditya Mahal; *f* – Baradari; *g* – hidden passage

The fortress stands on a flat-topped, sheer-sided and isolated sandstone hill. The hill rises up to 300 feet above the surrounding plain, and is long and narrow, measuring $1\frac{3}{4}$ miles from north to south and from 600 to 2,800 feet across.[5] The sides of the hill are revetted so that the fort wall seems to grow out of the hillside. Man Singh's palace, the Man Mandir, is situated on the extreme edge of the fortress, towards the north-west corner, and its eastern face forms a part of the curtain wall [11]. The palace overlooks both the main ascent to the fortress and the lower town,

and is in turn clearly visible from both those places – a circumstance which enhances its splendour though it must also advertise the position of the royal residence to any attacker.

The plan of the palace is a rectangle of 300 by 160 feet [68]; this divides into two unequal parts, the northern part (200 by 160 feet) being a courtyard for the accommodation of servants [69], and the southern part (100 by 160 feet) being the royal residence proper. The main body of the palace has two storeys and the outer wall is sixty feet high; on the eastern side however, where the palace is at the edge of the hill, there are also two lower storeys and the eastern facade extends an additional forty feet down the rock face. The northern wall merges with Vikramaditya's palace and the western wall is now much ruined, and so only the eastern and southern facades may be analysed.

The walls are essentially flat and unpierced. They are punctuated at regular intervals by massive round towers, and the skyline is relieved by the cupolas of these towers and by the box-like balconies and a delicate parapet [*iii*]. The main relief, however, from the large expanses of masonry is supplied by decoration applied to the surface in the forms of sculpture and coloured tiles. The sculptural ornamentation consists of the heavy and rhythmic carved string-courses and a frieze depicting an arcade of *toranas*. The tile decoration is also applied in a number of continuous friezes. Mostly the designs are geometric, though some represent ducks, crocodiles with their tails tied together (not candelabra as Rousselet thought[6]) and, on the solid part of the parapet, elephants, peacocks, tigers and plantain trees. The predominant colour is a bright turquoise blue; there is also some green and yellow. The tiles have survived on the southern wall better than elsewhere; their original profusion gave the palace its alternative name, Chit Mandir, or 'painted palace'.

Babur asserts that the eastern face was 'whitened with plaster',[7] and Cunningham confirms that traces of plaster survived in the last century;[8] presumably this stucco was added as a foil to the bright colours of the tile-work. Babur also states that the cupolas were gilded with copper;[9] this gilding has since been removed but originally it would have served the purpose of preventing the cupolas from being dominated visually by the coloured walls.

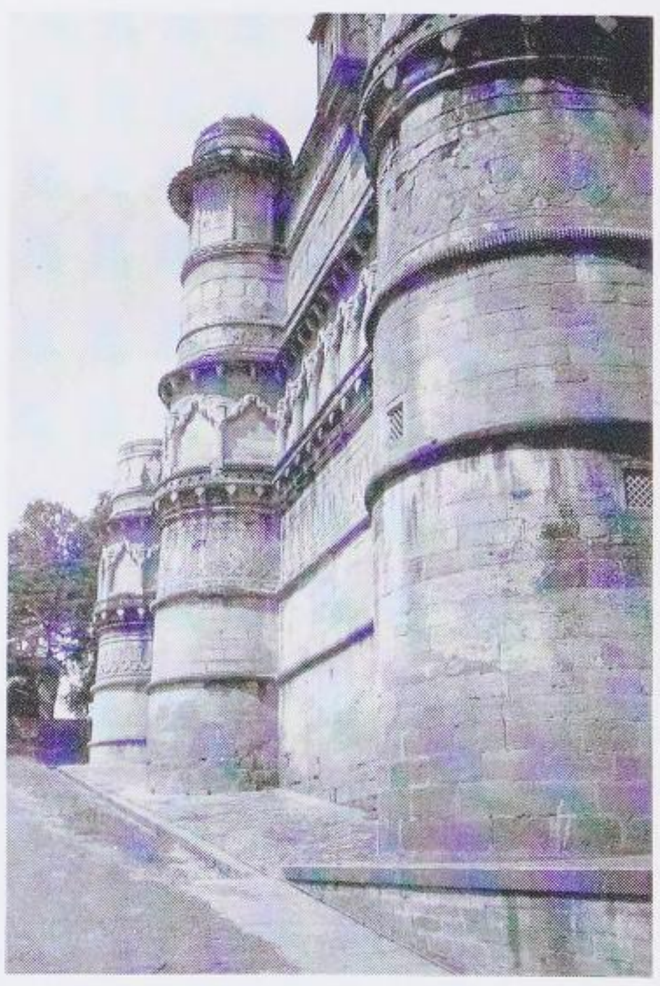
69. Gwalior; the servants' court of the Man Mandir

71. Gwalior; the Man Mandir – the corner of the west and north ranges of the inner courtyard

A curious design feature of the southern facade derives from the siting of the palace on sloping ground: at the southern end of the palace the ground rises towards the west. The top of the wall and the string-courses are, of course, horizontal but the base follows the line of the ground, so that the western edge of the facade is some ten feet shorter than the eastern edge. If one stands at the eastern end of the facade and looks towards the western end, the apparent diminution of the west end due to perspective is greatly exaggerated because it is shorter in fact [70]. This exaggerated diminution – emphasized all the more by the prominent and closely spaced string-courses and by the angle between them and the ground – is a most dynamic effect. It would not be significant were it not that the view described is the view from the Hathi Pol, the principal entrance to the fort and a part of the palace scheme. The siting of the palace has been carefully worked out with respect to the psychological effect on the visitor: as he climbs the ascent road the great eastern facade rises a hundred feet above him [11]; at last he reaches the top, passes through the last gate and is confronted by a facade which, though much smaller, is no less daunting because of its dynamic lines.

The royal residence inside the Man Mandir consists mainly of two courtyards. These are small (one is 33 feet square and the other 37 feet square) and extremely elaborately decorated with a rich variety of motifs [71]. The four sides of each court are quite different from each other and homogeneity is achieved only by the uniform profusion of carving and coloured tiles [72, *iv*]. The palace's remaining rooms are plain.

70. Gwalior; the south front of the Man Mandir, seen from the Hathi Pol



72. Gwalior; the Man Mandir – the east range of the inner courtyard

Immediately to the north of the Man Mandir, and connected with it by secret passages hidden within the depth of the walls, is Vikramaditya's palace. Though it covers a much larger area than the Man Mandir, it is much less compact, and its dispersed parts are much less extensively worked. Less of it survives now than did in 1865 when Cunningham drew its plan [68]. Its one exceptional room is the Baradari in the north-west corner [73]. This is a large square hall covered by a dome which is supported by eight curved ribs. Originally the sides of the hall were open, and it was a much larger and lighter room than any of those in the Man Mandir.[10] Also the powerful arches and the stout round columns which support

73. Gwalior; the Baradari of Vikramaditya's palace (c. 1510)

iii (facing). Gwalior; a detail of the south front of the Man Mandir (1486–1516)

74. Gwalior; the Gujari Mahal, from the fort (c. 1510)

75 (right). Gwalior; the Gujari Mahal, from the south-west

them are simpler and purer forms than any found in the older palace; these modelled and undecorated surfaces suggest a more sophisticated approach to architecture than do the flat, coloured surfaces of the Man Mandir.

But despite these differences, and despite its name, it would be wrong to assume that Vikramaditya's palace was built substantially later than the Man Mandir. Throughout the whole length of Vikramaditya's short reign (1516–18), Gwalior was under siege and so conditions were hardly favourable to building projects. It is therefore likely that Vikramaditya's palace was built during Man Singh's reign as the residence of the heir apparent.

Man Singh built a third palace, the Gujari Mahal, in the outwork, for his Gujari wife Mriganayana. Like the Man Mandir it is rectangular in plan and is contained within high, flat and mostly unpierced stone walls [74, 75]. The string-courses and coloured tiles are here more restrained. Small, domed balconies cluster around the cupolas at the corners, creating (like the arches and columns of the Baradari) greater formal variety and richness of shadow than is found in the Man Mandir.

76. Gwalior; the Hindola Pol (1486–1516)

77 (right). Gwalior; the Hathi Pol (1486–1516)

Of the six gateways on the ascent road, two were built during Man Singh's reign: the second and the last, the Hindola Pol and the Hathi Pol. Both have the round, cupola-crowned towers of the Man Mandir, but they are otherwise markedly different from each other. The various parts of the Hindola Pol are not well integrated; in particular the empty space above the archway, between the flanking towers, weakens the composition [76]. The Hathi Pol is a part of the Man Mandir, being attached to its south-east corner, and is stylistically complementary [77]. It is not a true, radiating arch, but a typical Hindu corbelled arch. However, it combines the corbel structure with the shape of a true arch, for superimposed over the corbels is an arc of beading; and the two establish powerful contradictory rhythms.

Standing at the north-west corner of Vikramaditya's palace is the so-called Karan Mandir. Though much earlier than Man Singh's palaces, this too was built during the rule of the Tomar Rajputs, for it is properly called the Kirtti Mandir and was built by Raja Kirtti Singh (1454–79) who was erroneously called Karan by Muslim historians. It is a small and narrow two-storeyed building. Stylistically it is quite unlike the later Gwalior palaces. With its plain stepped walls, open projecting balconies and small square windows [61, 12], it is much more akin to the palace of Rana Kumbha of Chitor, with which it is contemporary. This shows that the architects of Gwalior were not ignorant of the style that was prevalent in western India, and so we may assume that the stylistic differences between the palaces of Man Singh on the one hand and the palaces at Chitor on the other were a matter of choice.

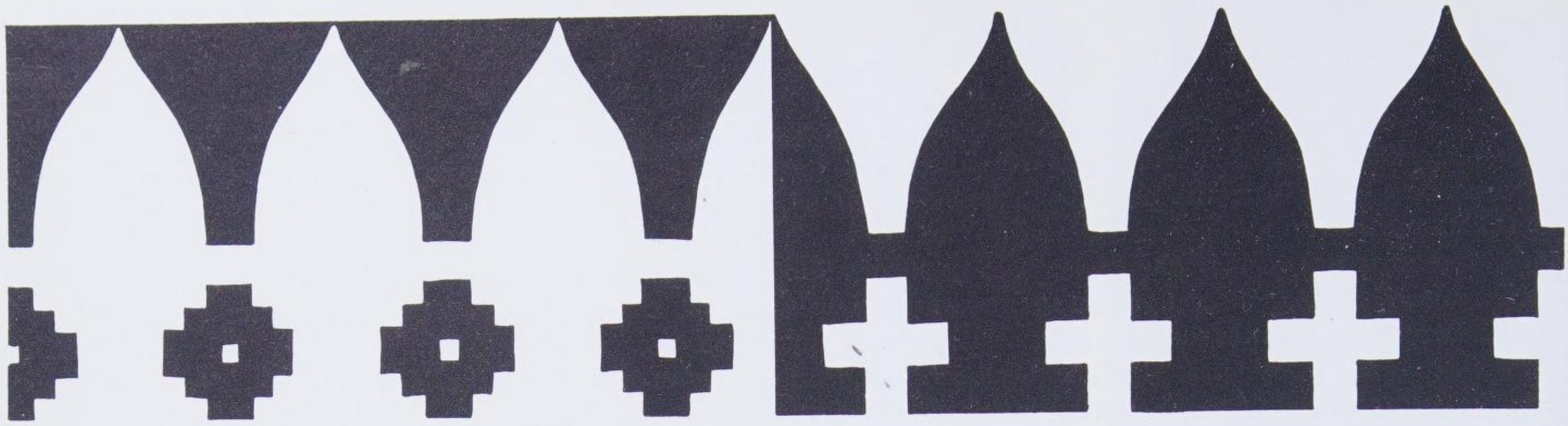
The architectural style of Man Singh's buildings – the Man Mandir, the Gujari Mahal, Vikramaditya's palace and the two gates – is superficially unique to Gwalior: there are no other buildings in India with a very pronounced family resemblance to them. The Gwalior style is unexpected and seems to be a side-issue to the main development of Indian architecture. A more careful analysis, however, discovers firm though disguised relations between it and other styles, including both influences on Gwalior and influences exerted by it. Chief among the former is the influence of the fifteenth-century buildings at Chanderi, and possibly also, though to a lesser extent, those at Mandu. These towns were the two capitals of the Muslim state of Malwa, adjacent to Gwalior to the south.

This influence – which, despite the supposed Indo-Islamic origin of the Rajput style, is not generally noticed – is most obvious in the glazed tiles which form such an important element of the facades of the Man Mandir. Although by 1500 the use of tiles for decoration was fairly widespread in India (having been introduced by the earliest Muslim invaders[11]), the particular blue used at Gwalior originated in Malwa. Percy Brown remarks:

> . . . it is evident that there was a very flourishing industry in glazed earthenware at Mandu during the fifteenth century . . . They possessed the secret formula, now apparently lost, for the preparation of a turquoise blue which for brilliancy has never been surpassed.[12]

These blue tiles can be seen at Mandu on, for example, the *qibla* wall of the Jami Masjid (1440), and at Chanderi on the Shahzadi ka Rauza (c. 1470). The precise similarity in colour of the Gwalior tiles suggests that the 'secret formula' was passed on. Since Chanderi is only 110 miles south of Gwalior and Mandu is 325 miles from it, it is more likely that it reached Gwalior from Chanderi.

On the other hand, one of the friezes of blue tiles on the Man Mandir imitates a particular and distinctive frieze pattern which, though found at Chanderi, is not there combined with the blue tiles; whereas it is so combined at Mandu. It appears, for example, in monochrome stucco in the mausoleum of Nizam-u-din (c. 1430)



78. Tile or frieze pattern (left) evolved from a parapet or battlement design (right)

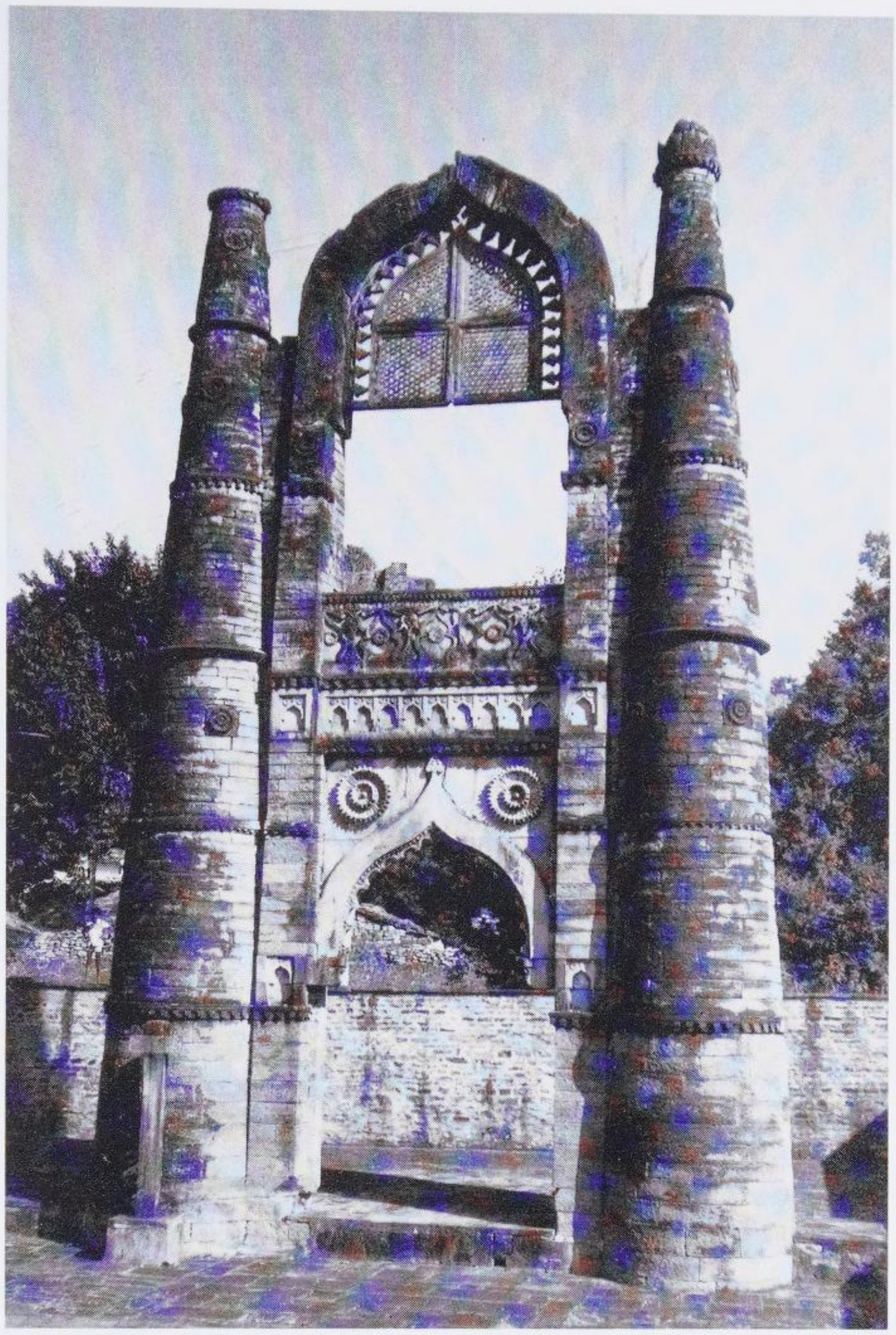
at Chanderi; and in the blue tiles in the Jami Masjid of Mandu [63]. Clearly the pattern derives from the kind of battlement or parapet decoration which is a common feature of early Muslim buildings in India, including those in Malwa [78]. When made from blue tiles, however, the frieze is a negative version of its model, as the dominant element of the frieze – the blue tiles which are applied to the stone – corresponds to the recessive element of the battlement – the empty space or bright blue sky. Dominant and recessive elements are thus reversed though the pattern and colour scheme are constant. Presumably the top part of the original design is itself a schematic and sculptural representation in miniature of a row of arches, and so it too is a negative of its original: for the parapet is solid precisely where an arcade is open, and open where an arcade is solid.

In Malwa-blue tiles this same pattern is faithfully imitated – even to such details as the slight ogee curve at the apex of the 'arch' element – on the upper storey of the facades of the Man Mandir [*iii*]. Decorative patterns which, like this, involve an ambiguity between two elements (where each can be read either as the dominant form or as the recessive ground) were later to become a favourite feature in Rajput architecture.

Chanderi is probably the source for the most forceful of all of the features of the Man Mandir, namely the enormous round towers. In Chanderi, but not in Mandu, there are a number of free-standing gateways; of these the Badal Mahal gateway is the most intact, but they are all of similar design and are of about the same date (mid-fifteenth century) [79]. They all have tall, tapering turrets with prominent string-courses at various levels. At Gwalior the taper has been eliminated and the string-courses are even more pronounced. The Chanderi gates were perhaps themselves inspired by the Hindu free-standing *toranas* which are commonly found in central India, though the Muslim structures are commemorative and secular rather than religious.[13] It is therefore especially appropriate that the Gwalior towers should carry a sculptural representation of an arcade of *toranas*. The tall or stilted domes on top of these towers are also in the Malwa style.[14]

In the interior of the Man Mandir the influence of Chanderi is evident in a structural technique. The chambers of the second storey of the Koshak Mahal (1499)[15] at Fatehbad just outside Chanderi, are roofed by large slabs which lean against each other, held in place only by their own weight and by triangular gables [80]. Precisely this construction is found in the room to the north of the first court of the Man Mandir [81].

Other buildings by Man Singh also show Chanderi's influence. A feature which is used perhaps to excess at Chanderi, though hardly at all at Mandu, is the serpentine strut under the eaves. These can be seen in profusion on the Jami Masjid (c. 1450) [82] and even on small-scale domestic architecture at Chanderi. The struts serve no structural purpose: the weight of the eave is in fact carried by brackets situated



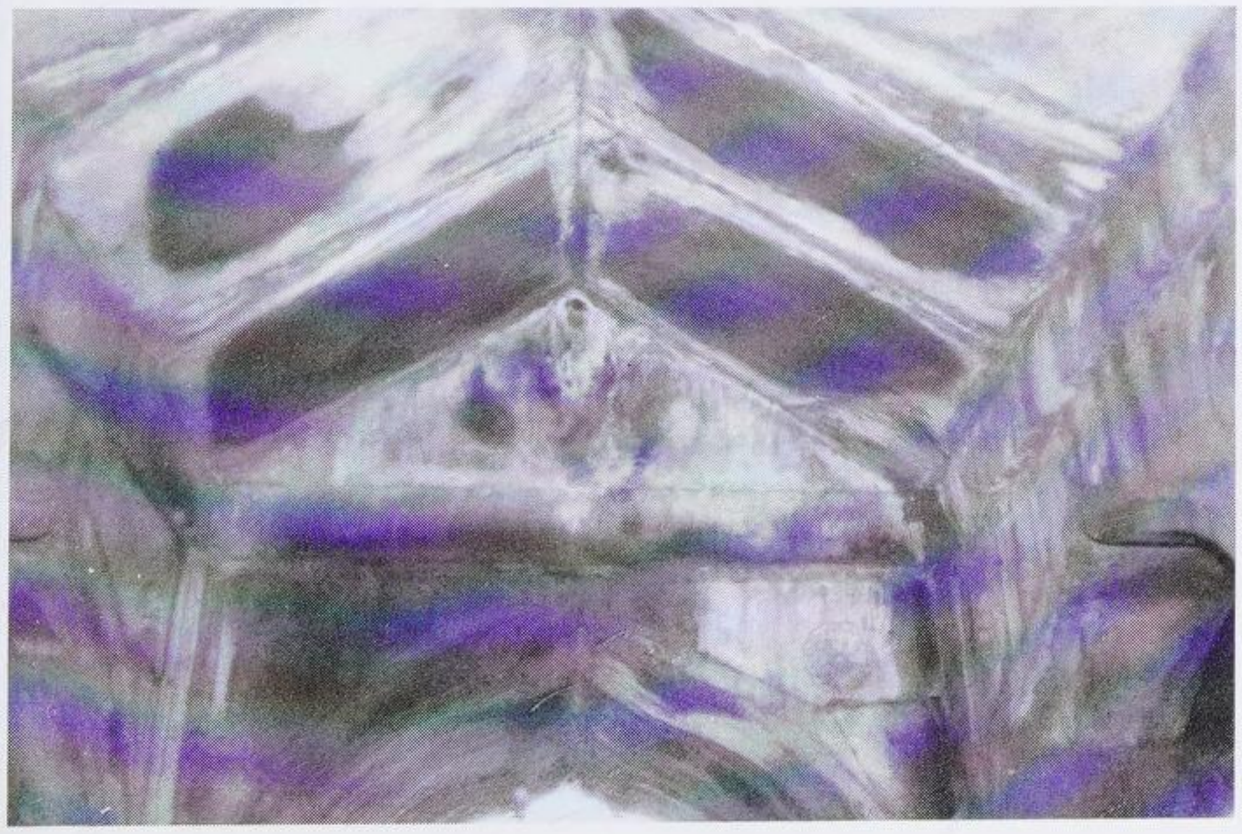
79. Chanderi; the Badal Mahal gateway (c. 1450)

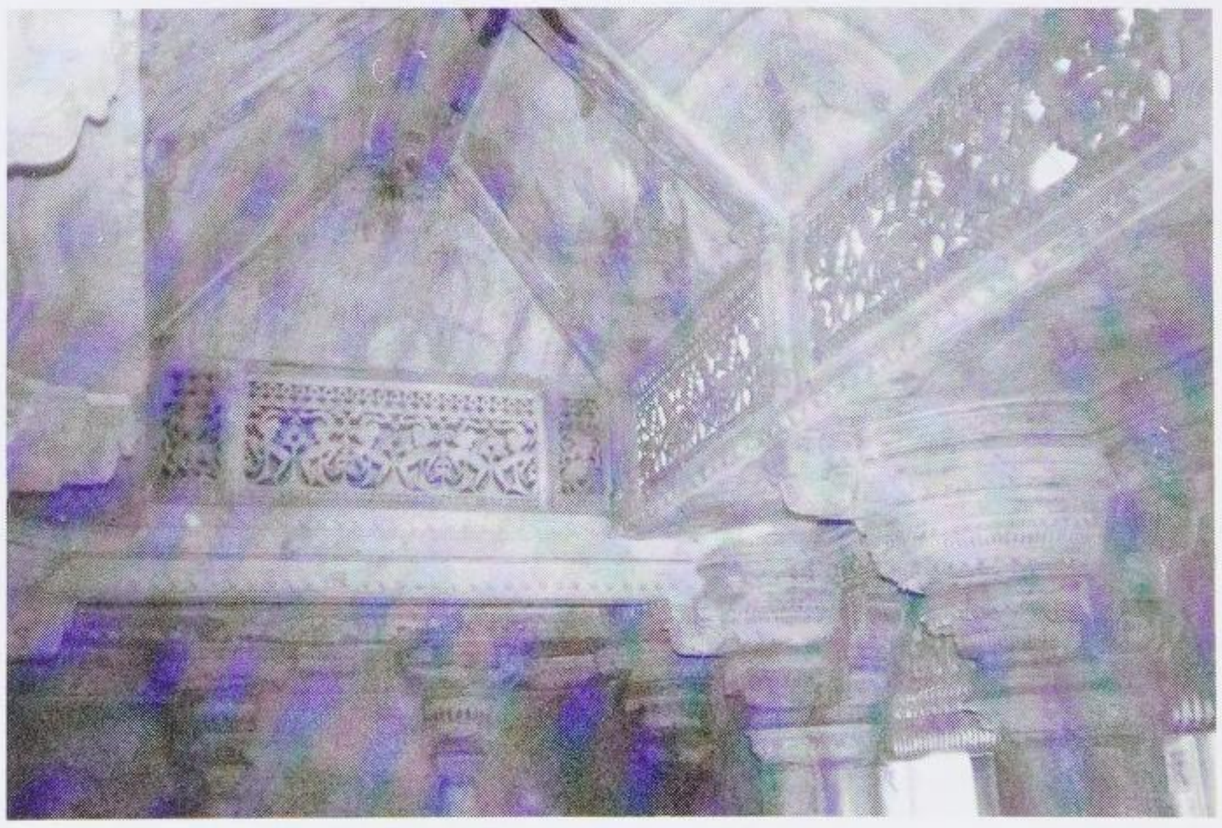
behind and hidden by the struts, which are therefore purely ornamental. Serpentine struts turn up at Gwalior, used in exactly the same way, on the Gujari Mahal [83].

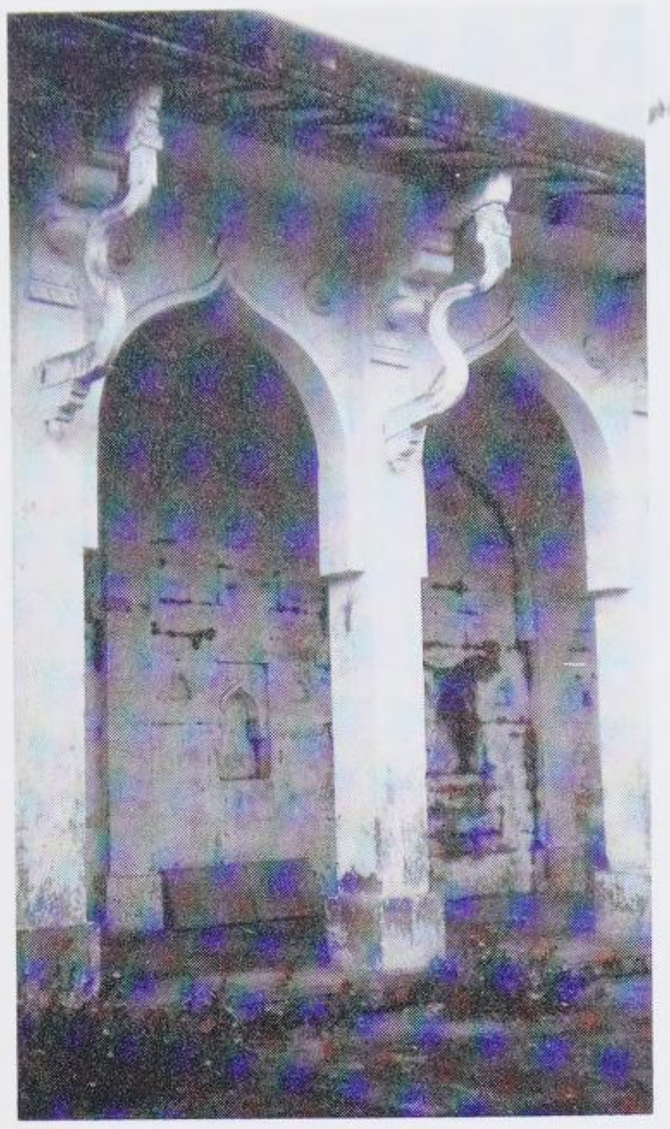
The second gate on the ascent road to Gwalior fort, the Hindola Pol, unlike the Hathi Pol, is a true or structural arch [76]. Though it is essentially semi-circular there is a very slight notch in the apex, thus making it an ogee arch, if a restrained one. Ogee arches are common in Malwa architecture and though usually they have a more pronounced ogee, those of the so-called Madrasa tomb, two miles outside

80 (left). Fatehbad, Chanderi; the ceiling of a room on the second storey of the Koshak Mahal (1499)

81. Gwalior; the ceiling of a room in the Man Mandir



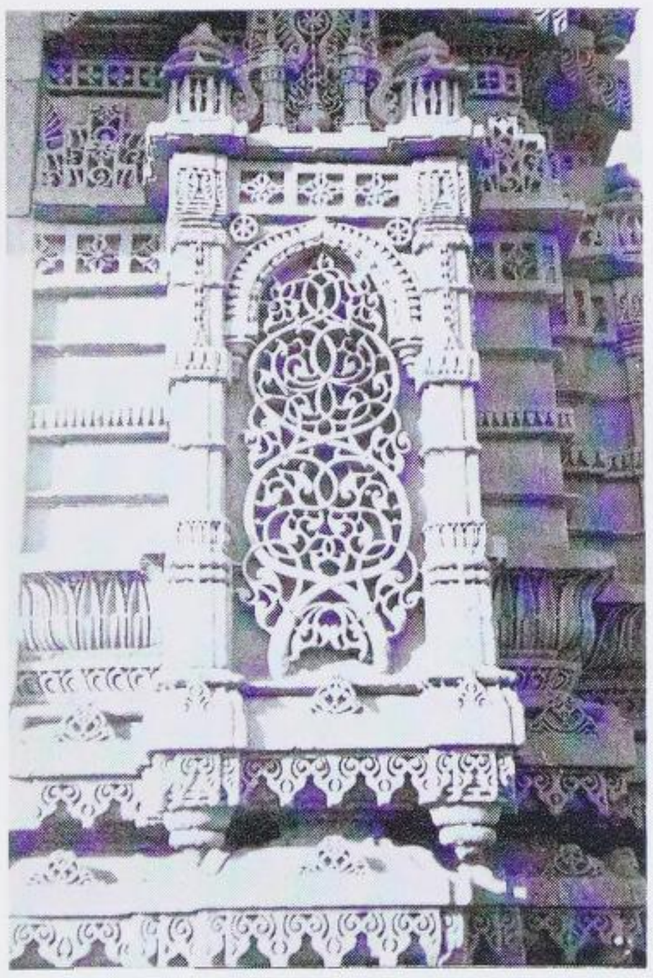




82. Chanderi; the south gallery of the Jami Masjid (c. 1450)

83 (right). Gwalior; part of the east front of the Gujari Mahal (c. 1510)

86. Ahmadabad; decorative carving on the Rani Sipri Masjid (c. 1510)



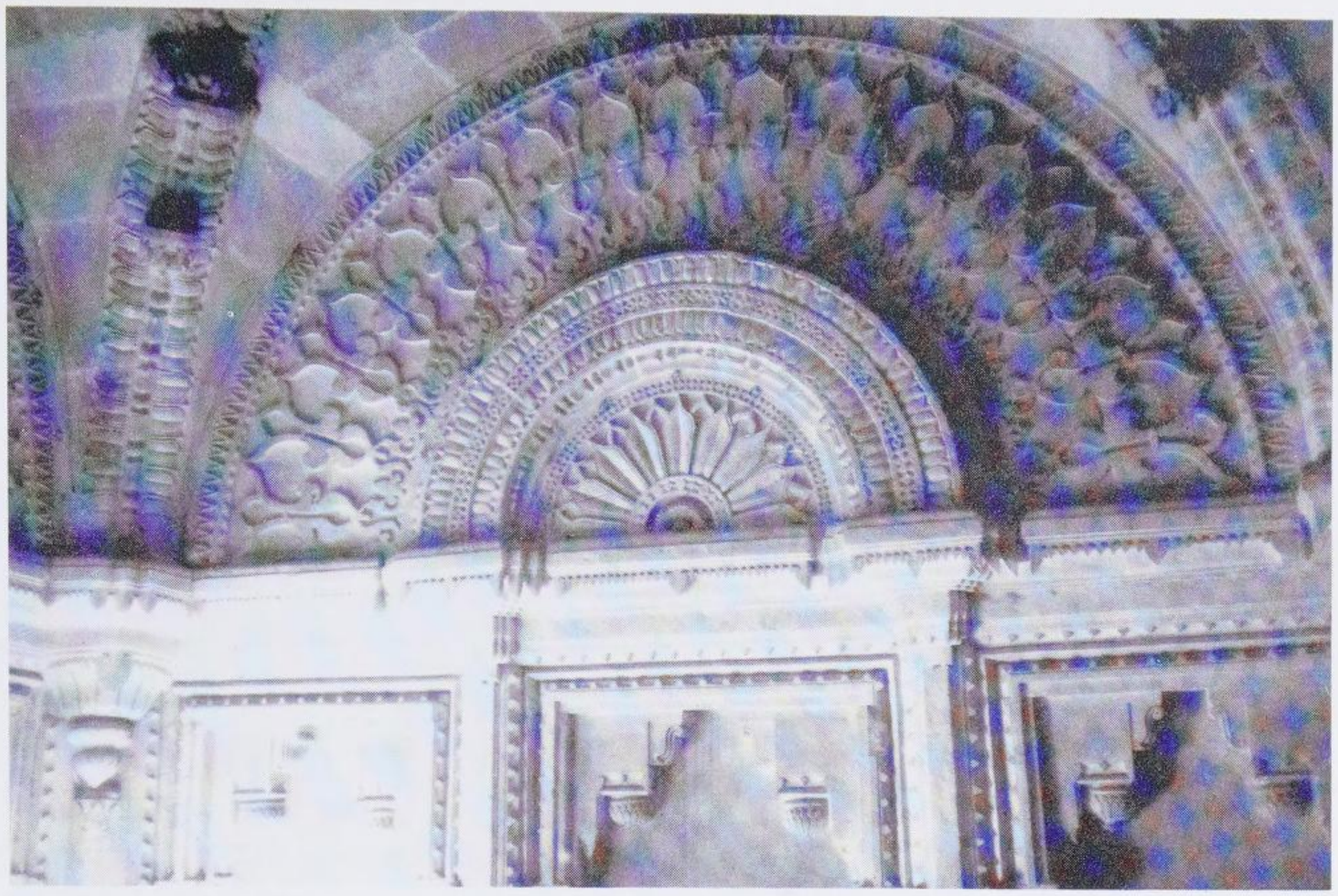
Chanderi, exactly prefigure the Hindola Pol. Even the fringe of spearheads which decorates the intrados of the Hindola Pol is derived from Chanderi; it is a favourite embellishment there and can be seen, for example, on the Badal Mahal gateway [79]. Indeed the Hindola Pol is reminiscent of this Chanderi one in many ways, as both consist of a notched arch, decorated with a fringe of spearheads and flanked by round towers with prominent string-courses.

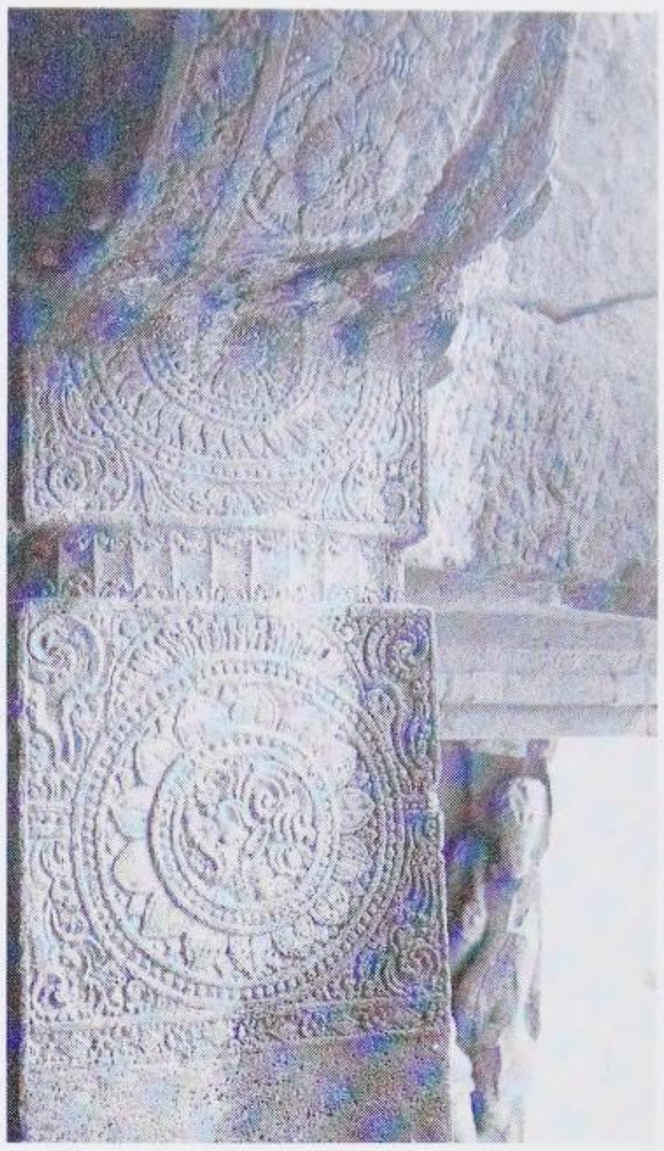
If a number of the motifs and forms of the Gwalior palaces are derived from buildings at Chanderi, those remaining are mostly traditional and Hindu, so that the Malwa influence, though it finds many and varied expressions, is not overwhelming. The *toranas* depicted in the frieze on the outside of the Man Mandir, for example, echo a feature of temple architecture; and the box-like balconies on the skyline are essentially Rajput, being like those at Chitor except for their Dravidian pyramid roofs.

Inside, the decorative carving, both in its specific forms and in its general profusion, is derived from central Indian religious architecture; except for the demon heads in the second court which are again Dravidian. The large semi-circular reliefs with lotus petal centres [84] recall the lotus medallions on the portals of the great Buddhist cave sanctuaries, such as those at Ajanta [85], and the top-heavy columns suggest a similar derivation [81]. The very wealth of carving inside the Man Mandir makes it exceptional among Rajput palaces; it is not dissimilar, on the other hand, to the rich Hindu decoration of the contemporary Ahmadabad mosques, and it is possible that the craftsmen responsible were Gujarati [37, 86].

Some of the motifs, however, are distinctly local: as J. B. Keith points out, the corrugated eaves of the second court of the Man Mandir [71] are derived from those on the two medieval Sas-Bahu temples within Gwalior fortress.[16] It may be added that the sloping balustrate of the balcony in the same court is similarly derived from those on the smaller Sas-Bahu temple [87].

The richness of the decoration of the Man Mandir is an aspect of the most substantial difference between the buildings of Malwa and those of Gwalior. At Malwa the coloured tiles and other decoration are applied sparingly, and the buildings rely for architectural effect rather on their form: on the variety of outline, of plane against plane and mass against void. In this sense Malwa architecture has a greater plasticity





84 (left). Gwalior; decorative carving in the Man Mandir

85. Ajanta; relief carving in Cave 7 (5th century)

and power than that of Gwalior. For Man Singh's buildings have much less formal variety. Apart from occasional features – such as the arches and columns of the Baradari and the grouping of the domes on the Gujari Mahal, as described – the Gwalior buildings rely heavily on their applied decoration. The Man Mandir especially is smothered with tiles on the outside and choked with decorative carving on the inside. The builders of Gwalior had a very different approach to architecture, so that whatever they borrowed from Chanderi in the way of motifs – and they borrowed a good deal – was employed in a different manner.

A similar sort of disparity, though less pronounced, distinguishes the Gwalior palaces

87. Gwalior; a balustrade and eaves of the smaller Sas-Bahu temple (11th century)

from most other Rajput palaces. Generally the facades of Rajput palaces have a much greater depth and spatial variety. Walls are rarely flat – arcades are open rather than blind – and have broken skylines. Similarly, in plan and massing the majority of the palaces are varied and informal, while the Gwalior palaces are in the minority in being, if not symmetrical, at least regular blocks. And in the buildings of the mature phase of the style are found a number of formal motifs which again lend variety of shape, line and space. Perhaps it is above all because these motifs are absent at Gwalior, and because they are so characteristic of mature Rajput architecture, that the Gwalior buildings seem to have a style of their own. For Gwalior has no *bangaldar* roofs, few square-based or angled domes, and though it has some cusped arches they are very discreet [30]. Only the square balconies which interrupt the parapet of the Man Mandir are obviously Rajput.

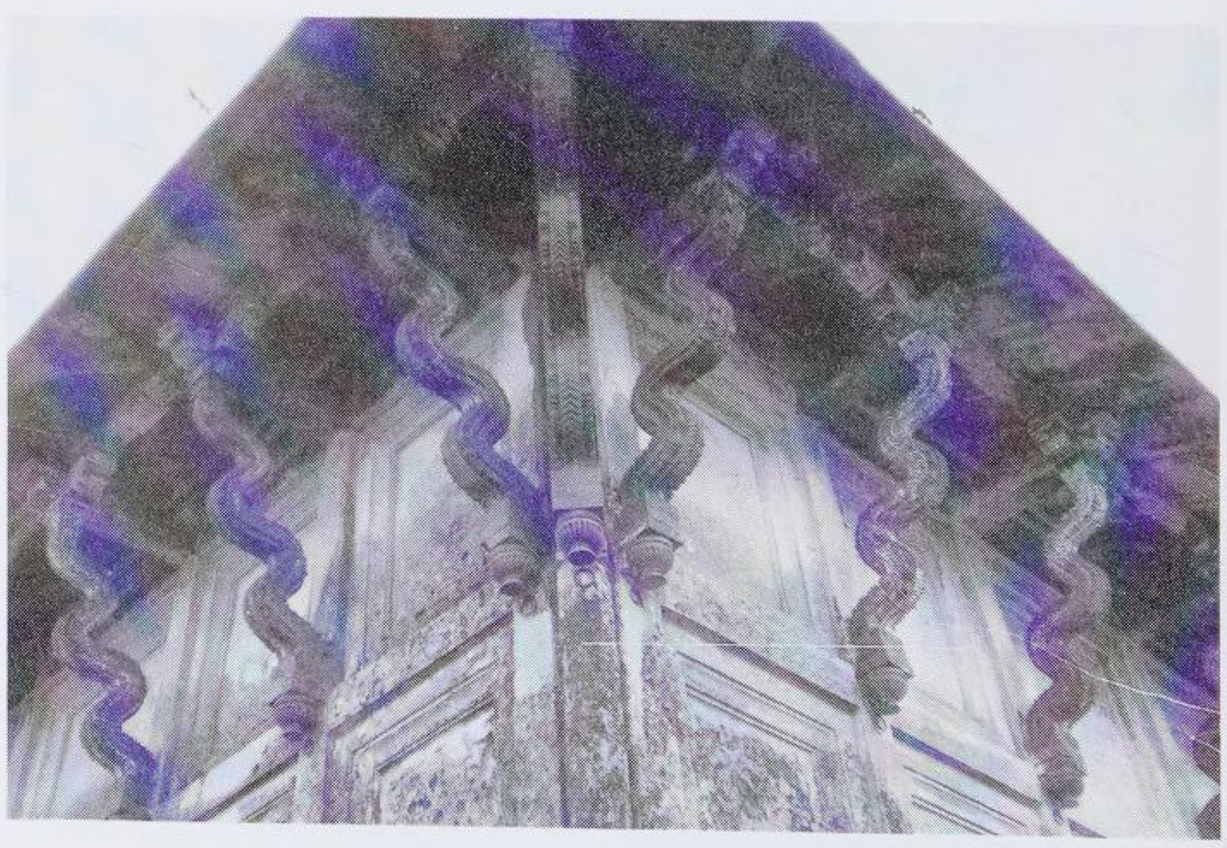
It is probably on account of these striking dissimilarities that it is sometimes asserted that the Gwalior buildings were of no importance for the development of the Rajput style.[17] Again, however, a closer investigation reveals various emphatic connections.

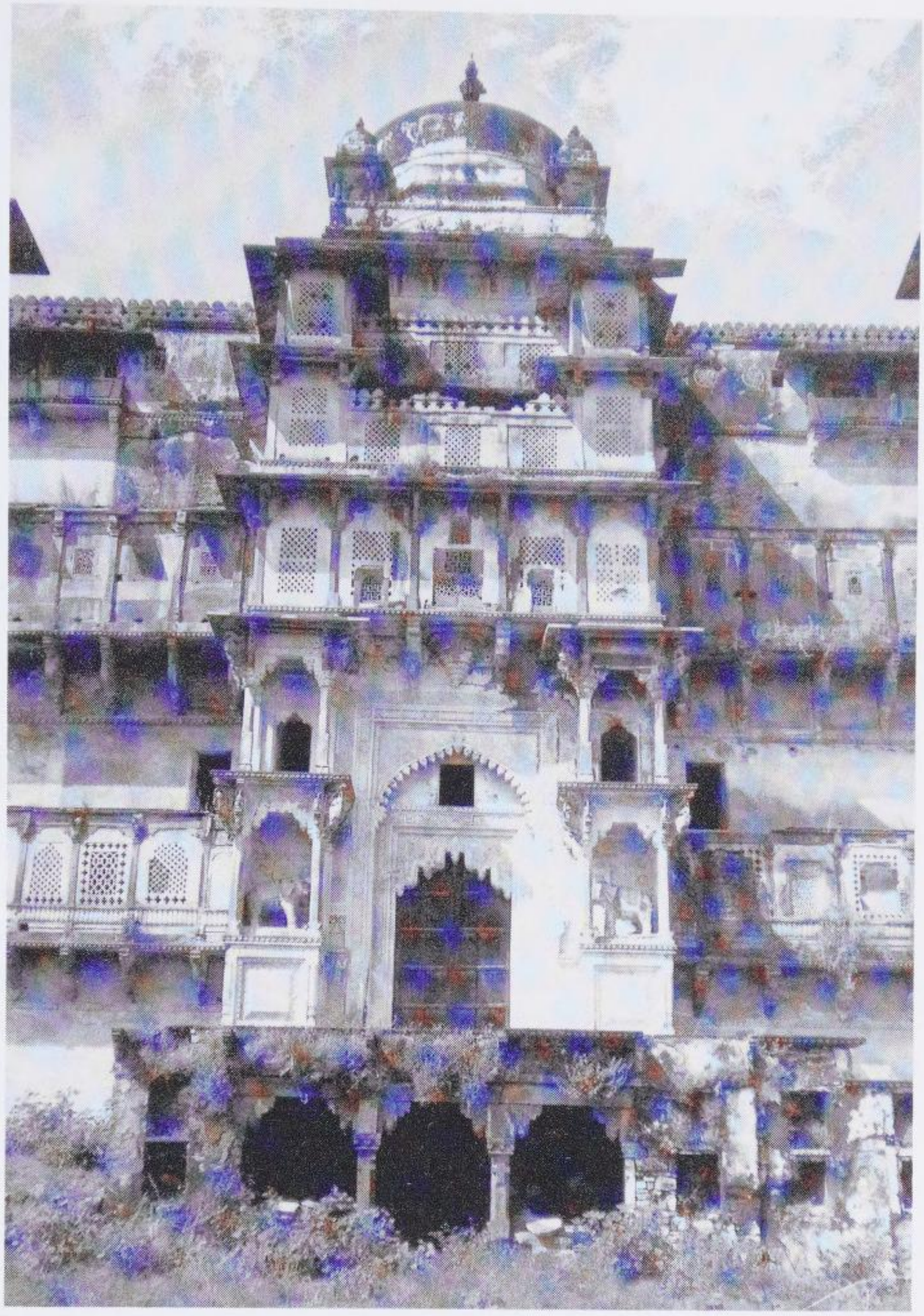
The principal or northern facade of the Bikaner palace [161], for example, corresponds in many ways with the principal or eastern front of the Man Mandir [11]. The Bikaner facade, like the Gwalior one, is a long and generally flat wall, relieved at regular intervals by towers which project like buttresses and which are crowned by round cupolas. Details are different (for example, the Bikaner towers are half-octagonal rather than round) but in general conception the Bikaner facade echoes the Gwalior one. Half-way up the Bikaner facade an open colonnade runs its whole length, continuing, peculiarly, even through the towers. This colonnade completes the reference to Gwalior, for it corresponds to the frieze of *toranas* there, which also continues even over the projecting towers. The Bikaner colonnade differs in that the arches are not of the temple form but are of a mature Rajput design, and the arcade is not blind but open – an aspect which weakens the appearance of the buttress towers. These and other differences together make the Bikaner facade seem at first quite distinct, but they are accounted for by the development of the style between the building of the two facades. And despite these changes, the essential elements have remained the same.

Rather closer to Gwalior than Bikaner are the palaces of Orchha and Datia in erstwhile Bundelkhand (fifty and sixty miles south-east of Gwalior respectively). These palaces (the principal subject of Chapter Five) were built between 1501 and 1620. They continue the eastern Rajput tradition, established at Gwalior, of drawing partly on the architecture of Malwa for inspiration. They make extensive use of

88. Datia; a veranda on the second storey of the Govind Mandir (c. 1620)

89 (right). Datia; brackets on the tower of the Govind Mandir (c. 1620)

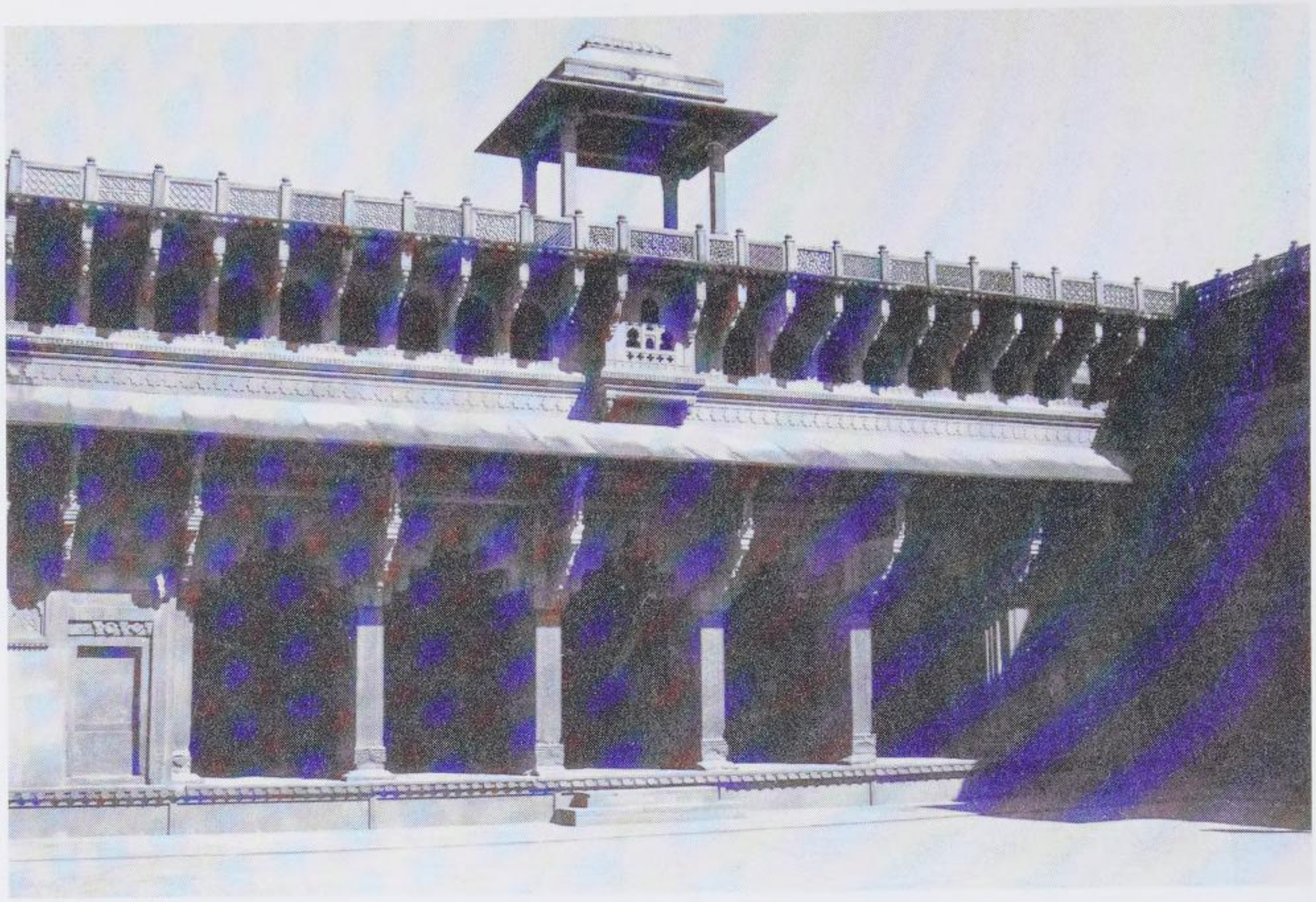




90. Orchha; the principal entrance of the Jahangir Mandir (c. 1605)

the Malwa ogee arch [88]; and the serpentine struts, which the Gujari Mahal borrows from Chanderi, turn up again on the topmost chamber of the Govind Mandir at Datia [89]. The four principal palaces of Bundelkhand are all, like the Man Mandir, large and regular blocks articulated by heavy string-courses. More specifically in imitation of the Man Mandir is the grouping of the domes on the Jahangir Mandir at Orchha (c. 1605) [98] and on the Govind Mandir at Datia (c. 1620) [105]: both of these palaces have round cupolas placed at regular intervals around the top of the outer wall, and between each pair of cupolas a Rajput *chattri* (a small domed kiosk) breaks the line of the parapet. The skyline has become more cluttered but the basic arrangement is unaltered.

The sculptural decoration of Gwalior was also influential on subsequent Rajput architecture. One of the motifs used on the Man Mandir is the elephant; elephants feature, for example, on the western range of the first court and on the parapet of the southern front. Also, the Hathi Pol takes its name from a life-size statue of an elephant which once stood outside this gate. (The statue has since disappeared,[18] but it was admired by Babur in 1528[19] and by the English merchant, William Finch in 1610.[20]) Representations of elephants had, of course, for a long time formed an important part of temple decoration and so their appearance in palace architecture is not surprising. However, it is significant that the particular adaptation of the idea found at the Hathi Pol – namely, the siting of a large image of an elephant close to the main entrance to the palace, as if to guard it – was repeated in later



91. Agra Red Fort; the Jahangiri Mahal (c. 1570)

Rajput palaces. A pair of sculpted elephants flank the entrance in the principal facade of the Jahangir Mandir at Orchha [90], and a similar arrrangement is found in the Govind Mandir at Datia. Another pair flank the final gate (the Suraj Pol, 1593) before the Bikaner palace. At both Bundi and Kota, a pair of elephants join trunks over the main gateway of the royal apartments (these sculptures were added about 1610 and about 1710 respectively) [187]. At Jaisalmer, a statue of an elephant guards the entrance to Salim Singh ki Haveli (c. 1815) [236], and indeed this became a customary feature of *diwans*' houses in Jaisalmer.

Gwalior's elephants had another, very different and less expected influence. For when the outer wall of Lahore fort was decorated with coloured tiles in the mid-seventeenth century, the choice of motifs surprisingly showed the influence less of nearby Multan – the original source of such tiles in India – than of Gwalior. The predominant motifs are not geometric but naturalistic, representing plants and animals, including elephants. The Lahore fort is only one of many Mughal buildings to be influenced by the Gwalior palaces; as is often noted,[21] the others include the Jahangiri Mahal of the Agra palace [91] and even Shah Jahan's pavilions in that palace, with their gilded cupolas. And in its apparent dependence on Gujarati traditions, the Man Mandir anticipates Akbar's palace at Fatehpur Sikri.

The Mughals had ample opportunity to study the buildings at Gwalior as, except during the Sur interregnum, they occupied them from the defeat of Ibrahim Lodi in 1526 until 1754. In that year the Mahrattas took the fortress from them and established a new Hindu dynasty.

If the Mughal occupation facilitated Mughal imitation of the buildings at Gwalior, it is clear that it did not prevent Rajput imitation of them. The palaces of Gwalior, with their unpierced, coloured walls and their components borrowed from Chanderi, seem at first unlikely harbingers of the Rajput style. Just as they transform the sources on which they closely depend, so their design ideas are transformed in turn by their successors at Bikaner, Orchha, Datia and elsewhere. The transformations disguise the stylistic inheritances but do not diminish them. And if many of the most striking features of the Gwalior palaces were abandoned in the course of subsequent developments, a sufficient number of others were perpetuated for Gwalior to be assigned a major place in the early and formative period of the Rajput style.

Five

Orchha and Datia:
Experiments in Symmetrical Planning

The area around Jhansi had formed the kingdom of the Chandel Rajputs in the tenth century; they established their capital at Khajuraho, of which only the magnificent temples survive [47]. At the very beginning of the sixteenth century the area once again formed a Rajput kingdom: in 1501 the Bundela Rajput Raja Rudra Pratap founded Orchha on and by an island in the Betwa River, just south of Jhansi.

Rudra Pratap was succeeded by his son Bharti Chand in 1531, and Bharti Chand by his brother Madhukar Shah in 1554. Both Bharti Chand and Madhukar Shah were uncooperative towards Delhi; in 1577 the imperial forces invaded Orchha and after a protracted struggle Madhukar Shah was routed in 1591.[1] However, Madhukar Shah's son Ram Shah was allowed by Akbar to succeed to the *gaddi* in 1592.

Ram Shah's problems were internal rather than external: he was perpetually under threat from his three energetic younger brothers, and particularly from Bir Singh Deo. In his struggle to relieve his elder brother of the *gaddi*, Bir Singh Deo took a calculated risk in 1602. To ingratiate himself with Akbar's son Prince Salim, he arranged the murder of Akbar's friend and biographer Abul Fazl, who was unsympathetic to Salim's succession to the imperial throne.[2] Akbar's response to this murder was predictably angry and swift: he invaded Orchha. But Bir Singh Deo escaped and when, in 1605, Akbar died and Salim duly inherited the empire as Jahangir, Bir Singh Deo received his dividend – he was raised to the *gaddi* and Ram Shah was deposed.

Raja Bir Singh Deo's reign was exactly coextensive with Jahangir's: he ruled from 1605 to 1627, when he died. This was the short period of Orchha's greatest political power and also of its greatest artistic and architectural activity.

Bir Singh Deo was succeeded by his son Jhujar Singh, but the special relationship which had subsisted between Orchha and Delhi died with Bir Singh Deo and Jahangir, and in 1634 the imperial forces again invaded Orchha to suppress a rebellion by Jhujar Singh. In 1641 Shah Jahan installed Jhujar Singh's younger brother Pahar Singh on the *gaddi*, and Pahar Singh and his successors remained loyal to Delhi throughout the remainder of the seventeenth century; but they had nothing like the power, influence and wealth which Bir Singh Deo had enjoyed.

In the eighteenth century, Orchha, in common with the other Rajput states, encountered trouble from the Mahrattas and Jats. Eventually, in 1783, Orchha was abandoned and the capital moved to Tikamgarh to escape the pressure of Jat raids.

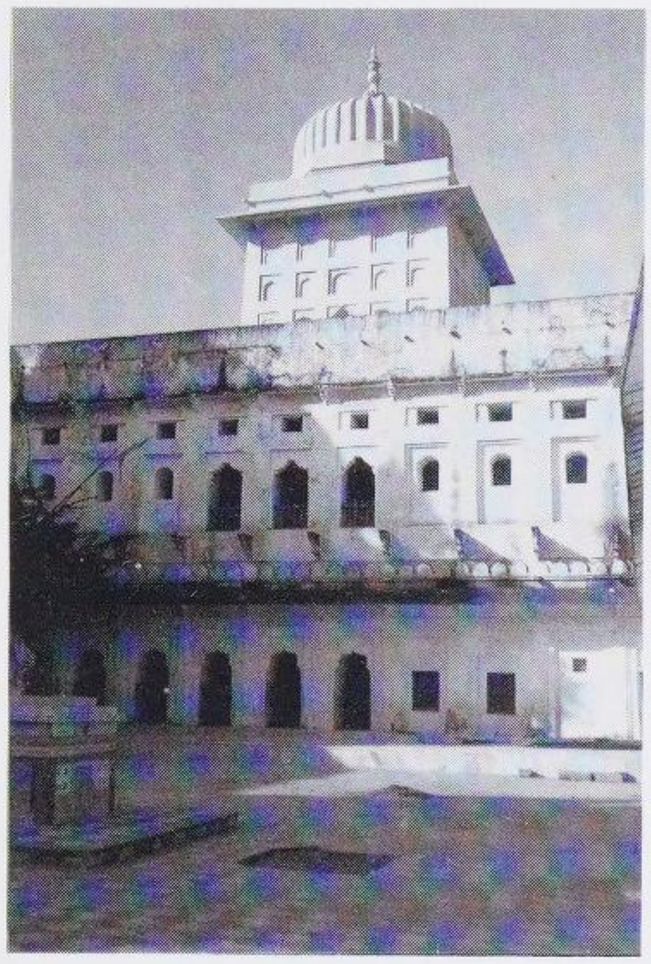
Datia, originally a part of Orchha state, was broken off from it in 1626. In that year Bir Singh Deo gave a small portion of his state, including the town Datia, to his son Bhagwan Rao, and this portion then became autonomous, with its own line of rajas. Why Bir Singh Deo should have done this is not clear, though it may be surmised that he wished to prevent a repetition between his sons, of the

rivalry which had occurred between himself and his brothers. The two states were named after their respective capitals, Orchha and Datia, but came to be known collectively as Bundelkhand.

One of the respects in which Orchha and Datia are exceptional among Rajput capitals is that instead of there being one *garh* palace, added to and altered over the generations, there is a series of *garh* palaces. There are three substantial *garh* palaces in Orchha, standing next to each other, and two in Datia (though only the first of the Datia palaces, built before the division of the state, is considered in detail here). Another peculiarity is that each of the four palaces considered can be dated to a comparatively short period. This greatly facilitates discerning the development of the style, as the early phases of that development have, for the most part, not been altered or destroyed: we have – as it were – a sequence of documents rather than a palimpsest. Furthermore, it becomes clear, on examining these palaces, that each served as the principal model for the next. It is as though a single design were developed and improved through four experiments.

92 (bottom). Orchha; the Ramji Mandir, from the south-west (1531–54)

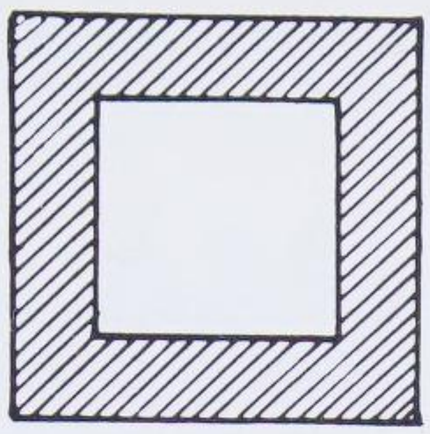
93. Orchha; the north range in the Ramji Mandir



The first of the palaces is the Ramji Mandir at Orchha, started by the founder of the town and dynasty, Rudra Pratap, and completed by his son and successor Bharti Chand, between 1531 and 1554 [92]. This is the one building of the group which has suffered major reconstruction as it has been converted into a temple.[3] But a simple sketch plan gives an impression of the ideas essential to the design [94].

The Ramji Mandir is a square structure. The ground storey consists of ranges surrounding a central, open, square courtyard [93]. The second storey is much the same; only two ranges survive but it is clear that originally there were four. The roof of this storey forms a terrace on which is placed, at each of the cardinal points, a square chamber surmounted by a dome; again, an originally symmetrical form can be conjectured.

The second palace of the group is the Raj Mandir, built on the island in the Betwa by Madhukar Shah between 1554 and 1591 and perhaps completed by his successor, Ram Shah. The essential conception of this palace is the same as that of the Ramji



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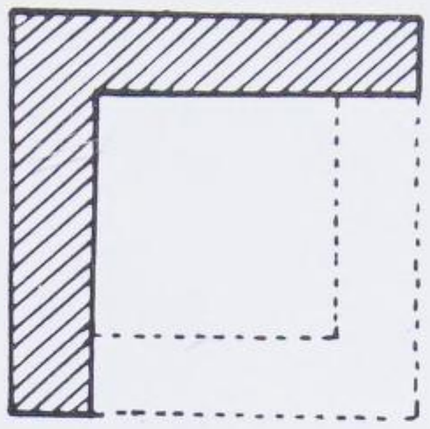

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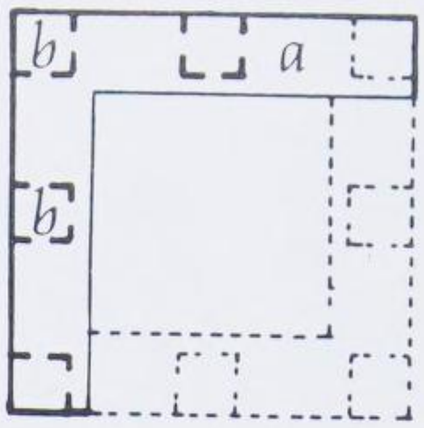

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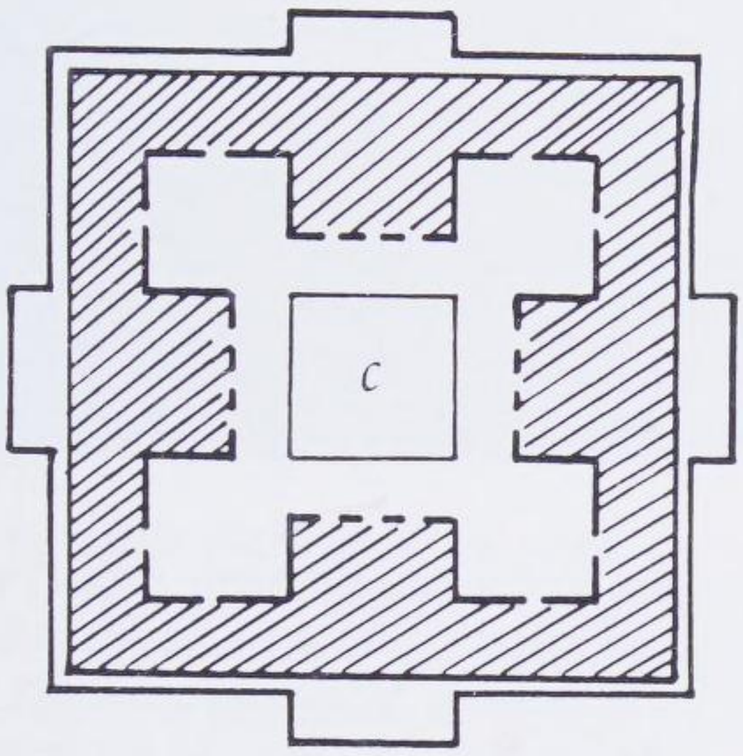

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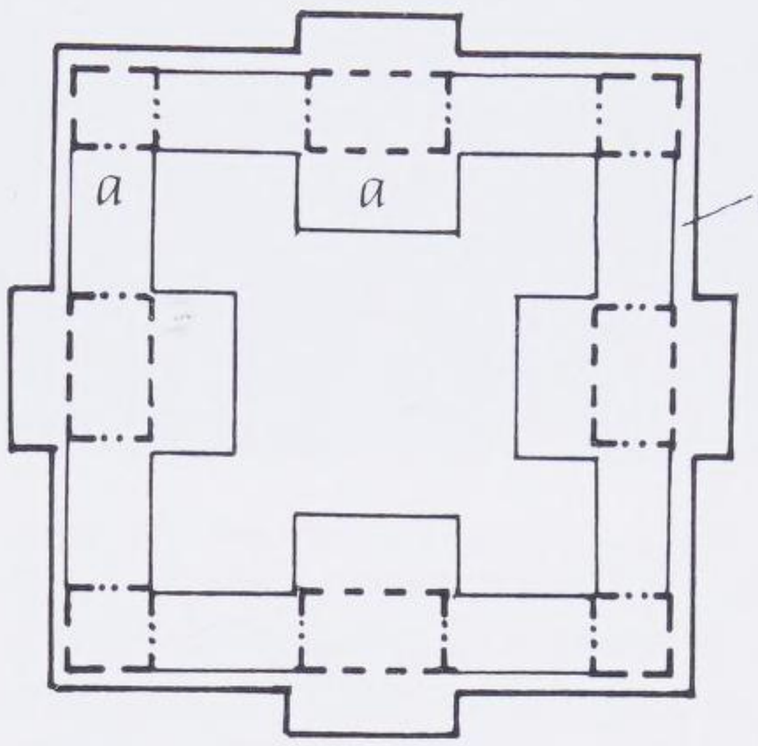

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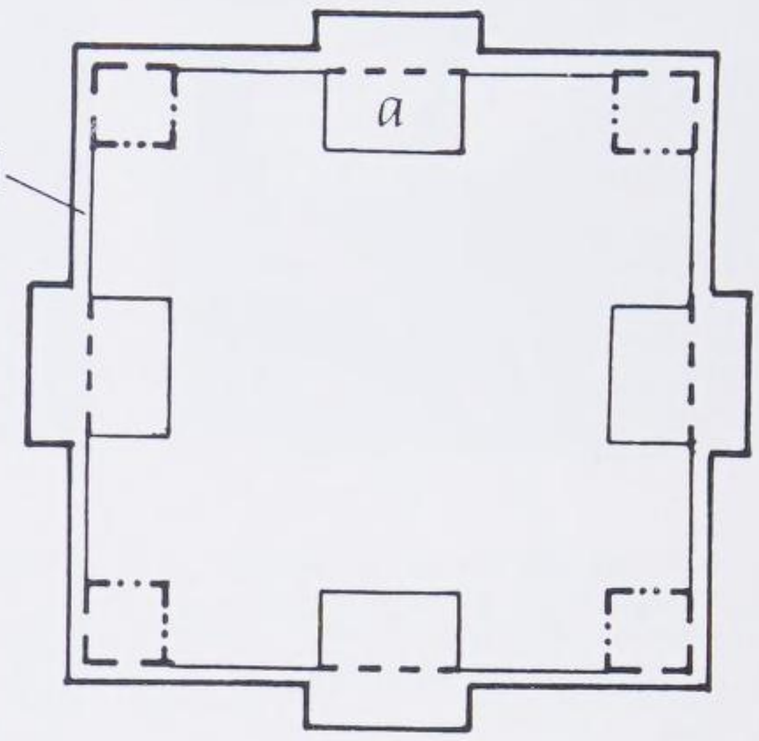

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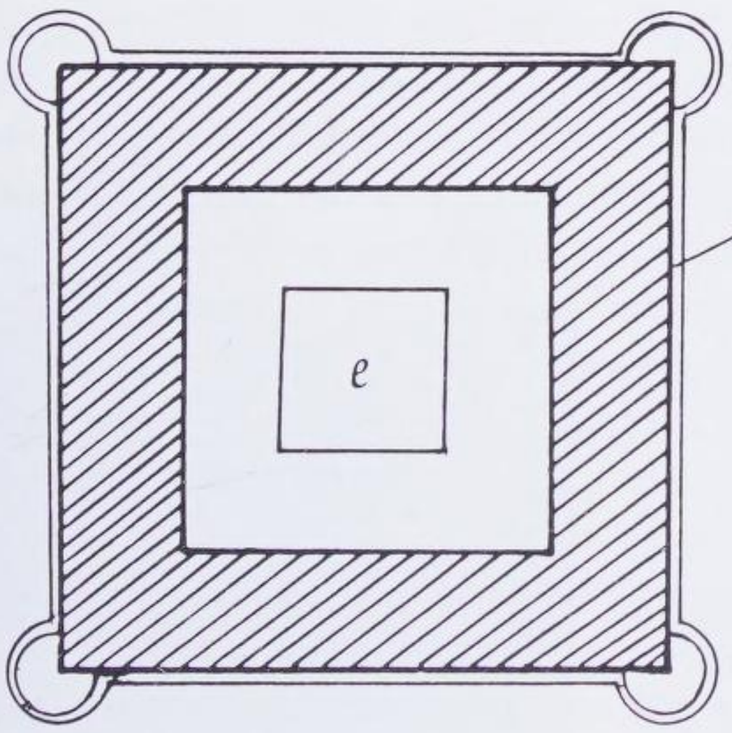

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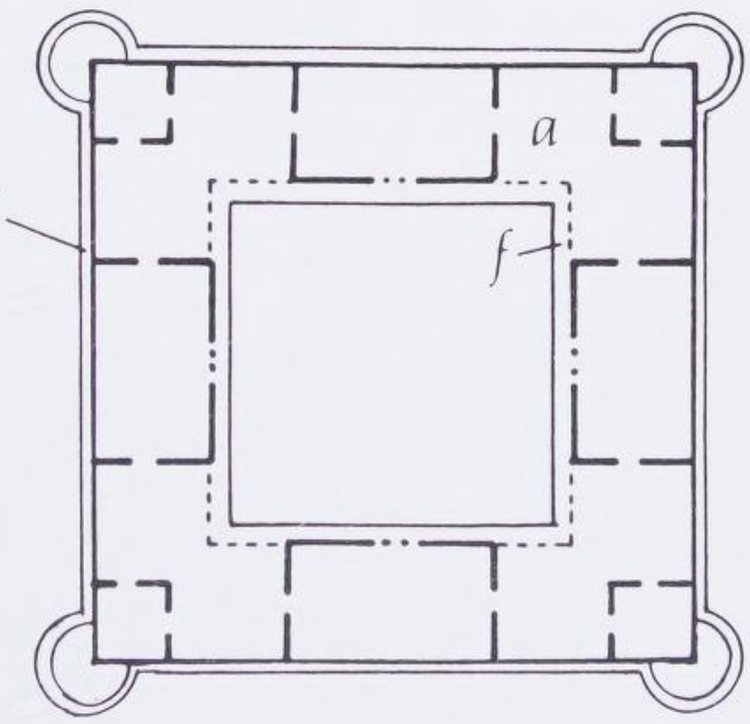

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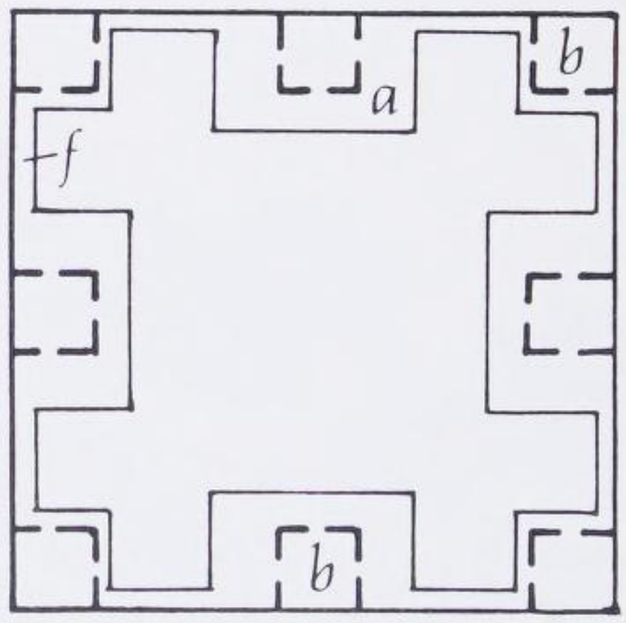

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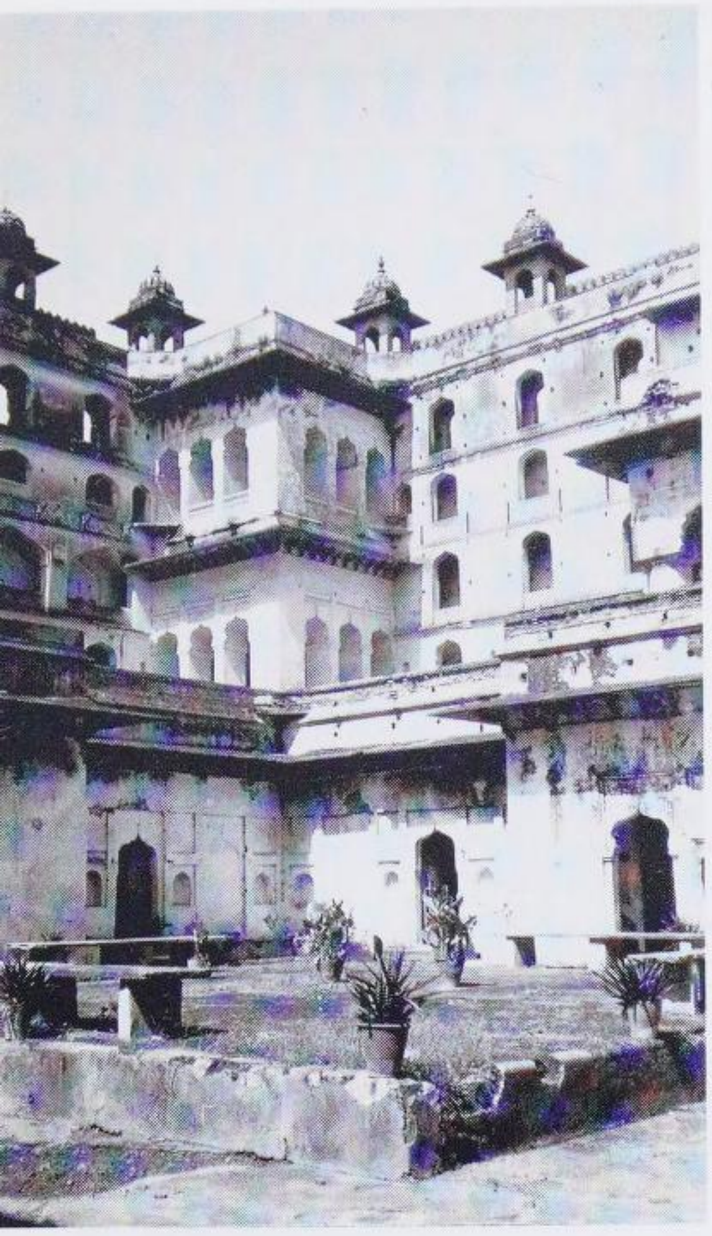
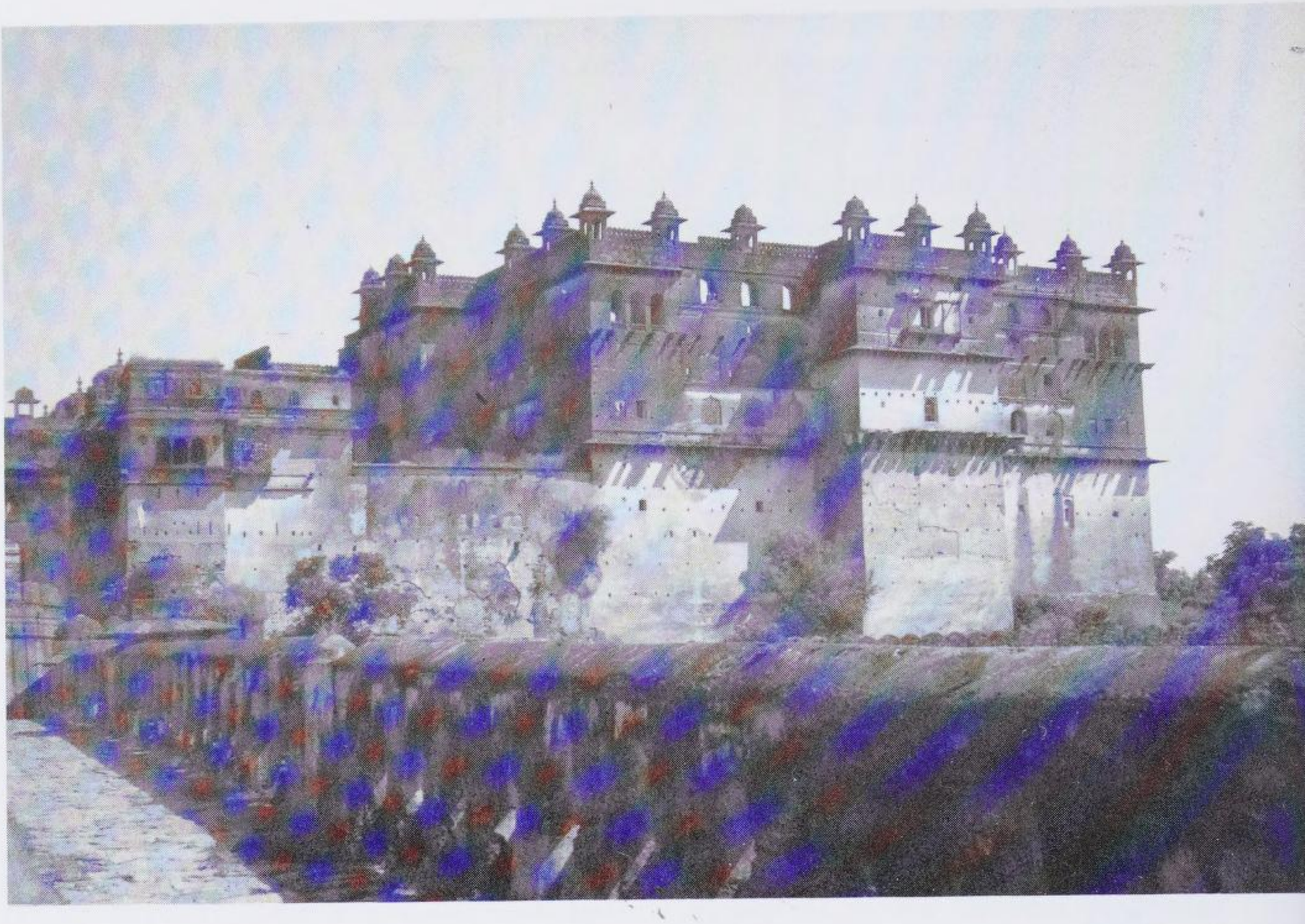
94. Orchha; sketch plans of the palaces (not to scale): 1 to 3 – the Ramji Mandir, first, second and third storeys (dotted lines denote conjectural reconstruction); 4 to 6 – the Raj Mandir, first, second and third storeys; 7 to 9 – the Jahangir Mandir, first, second and third storeys; *a* – terrace (roof of chamber below); *b* – chamber surmounted by a dome, *c* – shallow podium; *d* – corridor contained within the thickness of the outer wall, *e* – garden; *f* – projecting balcony supported on corbels. Shading denotes ranges subdivided into several chambers.





95. Orchha; the corner of the west and north ranges in the Raj Mandir (1554–91)

96 (right). Orchha; the Raj Mandir, from the west

Mandir but the ideas have been developed and the forms complicated. Again, the palace is square and the ground storey consists of ranges surrounding a central, open courtyard [94], but now the centre of each range is projected in order to create a more varied or picturesque line [13]. As before, the roofs of the lower storeys serve as terraces on which open chambers are placed at the cardinal points. The four corner ones each have a further square chamber above them, reached by corridors contained within the thickness of the outer wall of the palace [95].

There are no large domes on this palace; the topmost chambers have flat roofs. Instead, the top of the outer wall has a line of numerous small, domed *chattris* which give the exterior a rather fussy appearance [96]. This change, like the others, shows how the architects experimented with the posssible permutations of the same essential design. Not all the parts of the experiment had the same happy outcome: these little domes were clearly a mistake and were not used again in the later palaces.

The third palace at Orchha, the Jahangir Mandir, stands next to the Raj Mandir. It was built by Bir Singh Deo at the beginning of his reign, about 1605, and is named after his imperial patron. Here too the same design idea has been further modified and developed [94]. On the ground storey the simpler form of the ranges has been restored in order to provide a visually more solid basis for the upper storeys. Consequently the *chowk* is again square, like that of the Ramji Mandir. On the second storey, the roof once more forms a terrace on which pavilions are placed in the same positions, though those in the centre are now greatly enlarged: they extend more than half the length of the range and the full width of the terrace so that one can pass in front of them only by means of a narrow balcony supported on corbels [97]. On the third storey there are again eight chambers, as in the Ramji Mandir – rather than four, as in the Raj Mandir – and their domes have been reinstated [*v*].

If little mention has so far been made of the exterior appearances of these palaces, this omission is easily made, since the architects themselves seem to have been more concerned with the interior dispositions than with the exteriors. Each of the palaces

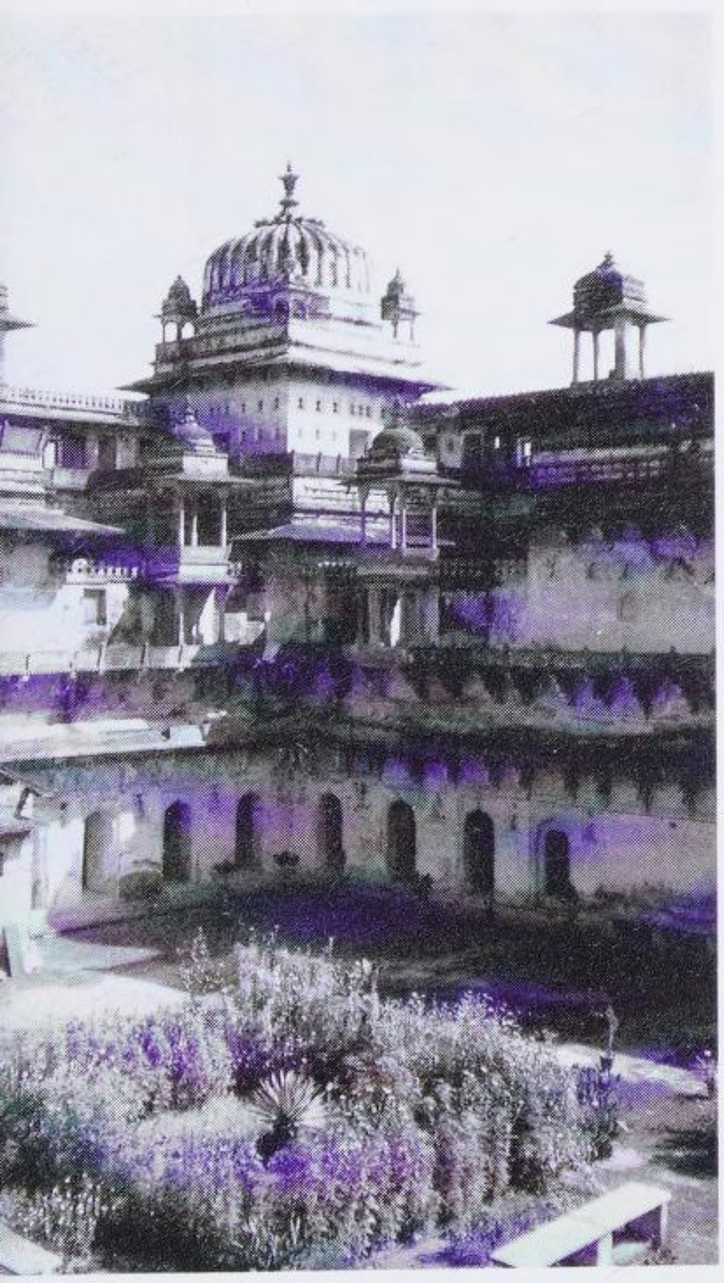
is designed from the inside: a courtyard is surrounded by inward-looking ranges, leaving high, sheer and rather blank outside walls. Care has been taken to provide variety of form inside, juxtaposing mass against balanced mass, or mass against void; but on the outside the effect is rather one of grim strength than pleasing variety.

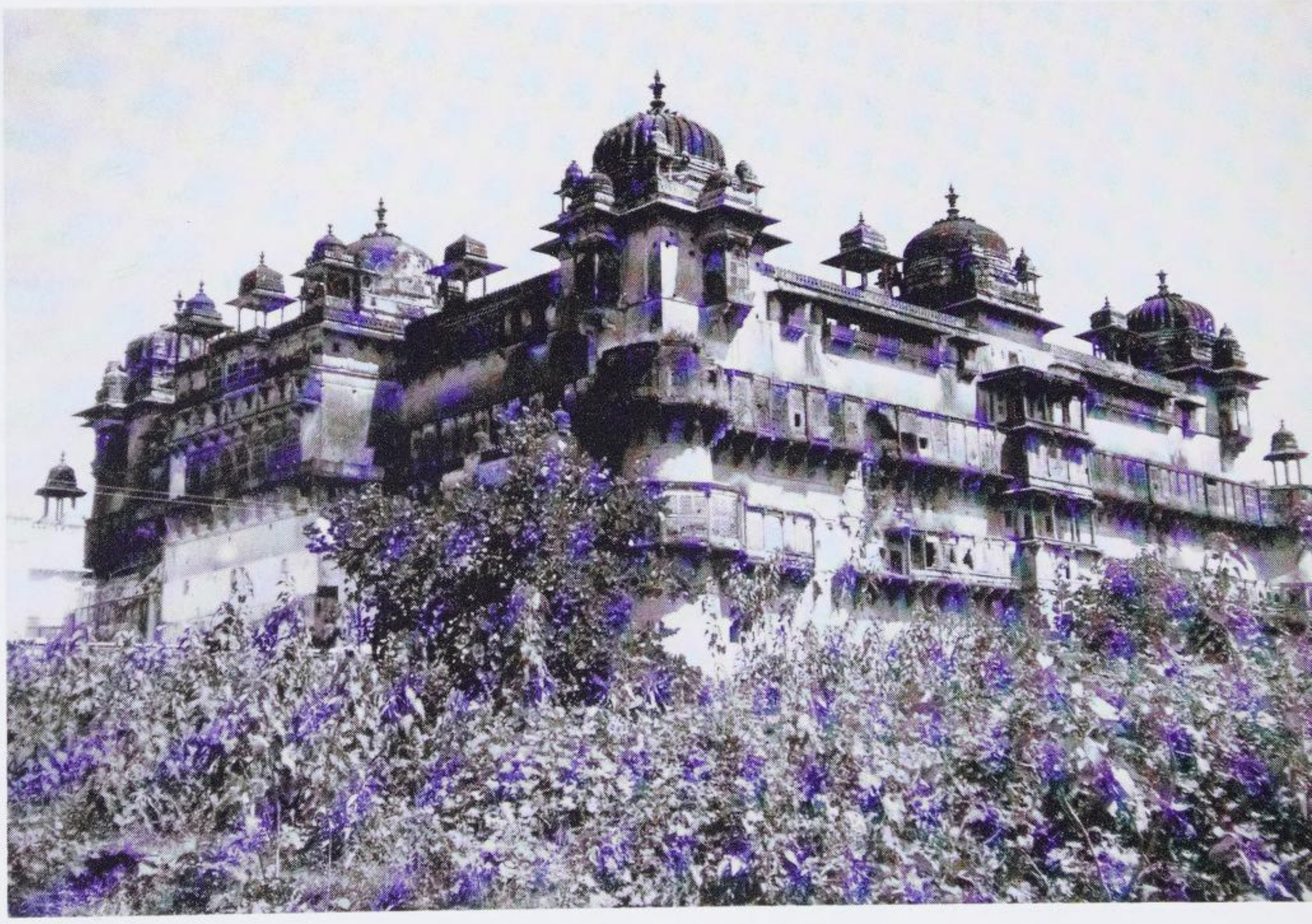
The architects did, however, make some effort to relieve the tedium of the high outer walls. On the Raj Mandir there is a projection in the centre of each side, providing extra rooms inside as well as some variety outside [96]. But this does not solve the greater problem – that the corners are visually weak. An attempt to solve this problem was made with the Jahangir Mandir: round towers were added to give emphasis to them [98]. This solution, however, presented another problem, namely, how were these towers to be provided with suitably emphatic tops? The traditional treatment of a round tower – employed, for example, on the Man Mandir at Gwalior – is to crown it with a dome, but that would not have served here because of the domes on the top corner chambers. Domes could not have been placed on both towers and chambers because they would have clashed; and domes could not have been placed on only the chambers or only the towers because then the towers or chambers without domes would have looked horribly topless – as the corner chambers of the Raj Mandir do [95]. The solution to this difficulty attempted by the architects was to raise the towers only as high as the second storey, and crown them with *chattris* at that level, so that the chambers' domes rise uninterrupted. This is not wholly satisfactory, as the towers look too short for the building [98].

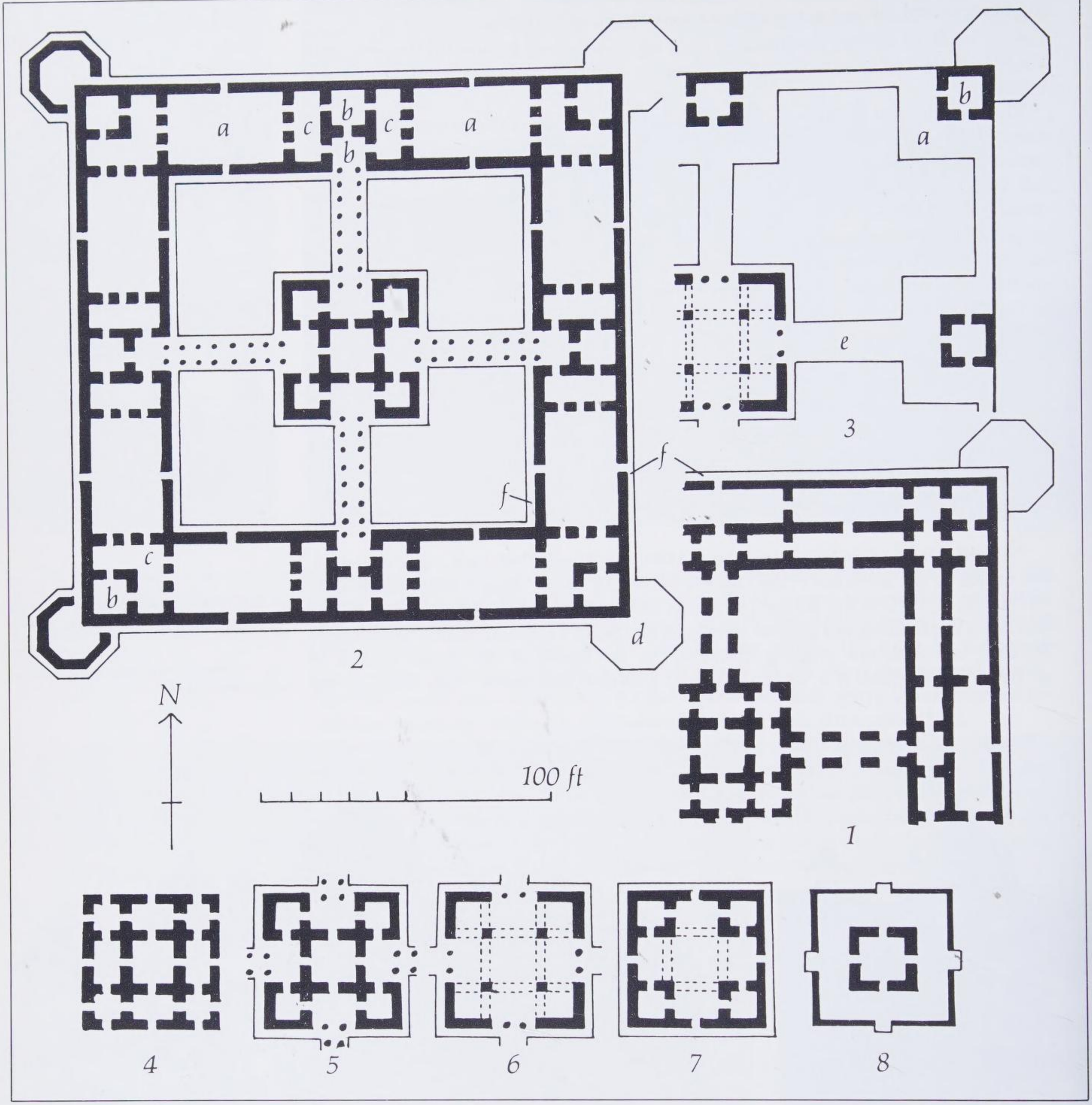
Towards the end of his reign, about 1620, Bir Singh Deo built another palace, the fourth in the sequence – the Govind Mandir at Datia, fifteen miles north-west of Orchha [*vi*]. Here the design reaches its most successful form [99]. The Govind Mandir is in planning and general arrangement almost a reproduction of the Jahangir Mandir, but with one striking difference: in the centre of the *chowk*, instead of an open space, there is a square-planned, five-storeyed tower. This contains the

97 (left). Orchha; the corner of the north and east ranges in the Jahangir Mandir (c. 1605)

98. Orchha; the west and south fronts of the Jahangir Mandir







99. Datia; plans of the Govind Mandir (c. 1620): 1 – the north-east portion of the first main storey (above a two-storey substructure, not shown); 2 – the second storey; 3 – the north-east portion of the third storey; 4 to 8 – the five storeys of the central tower; *a* – terrace (roof of chamber below); *b* – roofed chamber; *c* – veranda; *d* – octagonal corner tower (the easterly two are incomplete); *e* – catwalk (roof of linking bridge); *f* – projecting balcony supported on corbels.

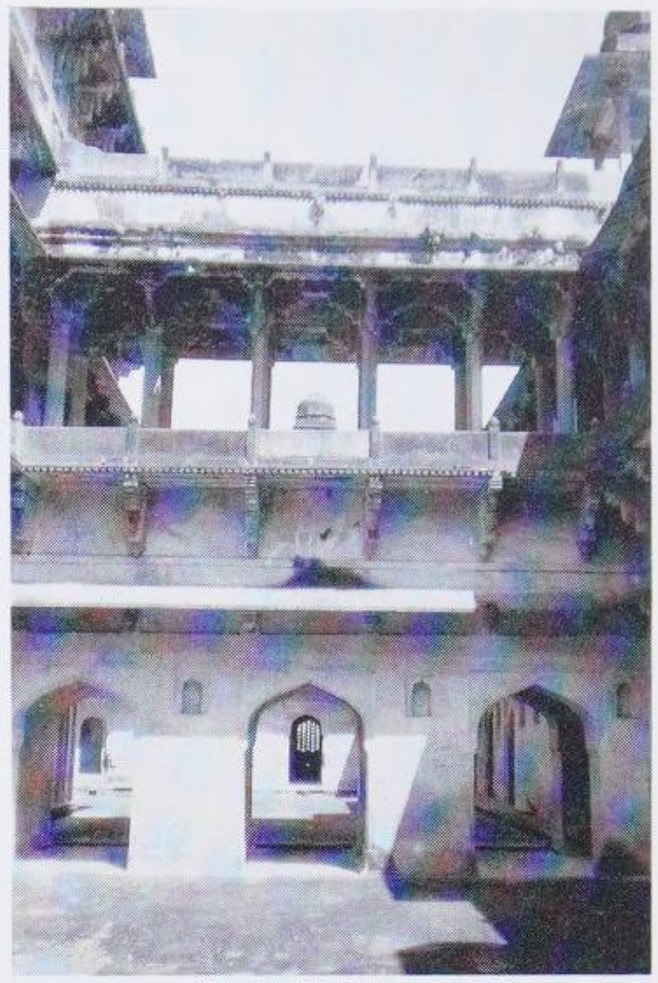
principal royal chambers. The lower storeys are connected by bridges to the surrounding ranges [100]; the upper storeys soar above the ranges [101].

This addition makes an enormous difference. The architectural rhythm – created by the variety of line and juxtaposition of masses – is greatly complicated and enhanced; there is no longer a large breathing space in the centre. The relation of the parts – the manner in which the corner towers connect to the ranges, the ranges to the link bridges, the bridges to the central tower, the tower to the courtyard and so on [102, 103] – is immediately clear and readable, so that, deprived of the central point of rest, the eye is led in an unceasing movement over these solids and spaces, helped by the low parapets which run around all the largest blocks [104]. The overall symmetry of the design gives order and discipline to this rhythm, as each form is repeated: we find a recurring pattern of rooms, a mirrored segment of *chowk* and so on [99]. In short, this is a highly sophisticated and successful architectural design. Even Edwin Lutyens (who affected to believe that there is no such thing as Indian architecture) confessed to admiring the palace of Datia.[4]

The one weakness of the design, as with its precursors, is the exterior. The corner round towers of the Jahangir Mandir have been replaced here by octagonal ones, but there is still no solution to the problem of what to do with their tops. Two of them were never completed beyond the basement level, as if in acknowledgement of the failure [105]. Also, the central tower, considered from outside the palace, is too short; it fails to dominate the composition satisfactorily. In defence of the exterior design in general, it should be said that it is at least suitably forbidding for a building which was meant to be a stronghold.

This palace was built just before Datia was broken off from Orchha and became the capital of a separate state. It is alleged that the palace was never inhabited,[5] and this may account for its remarkable state of preservation; for though the plaster has deteriorated and the wall paintings have all but disappeared, the building has suffered no major structural alterations.

There is another palace in Datia which clearly was inhabited. It was begun by the second raja of Datia, Subha Karan, from 1656. This is quite different from the

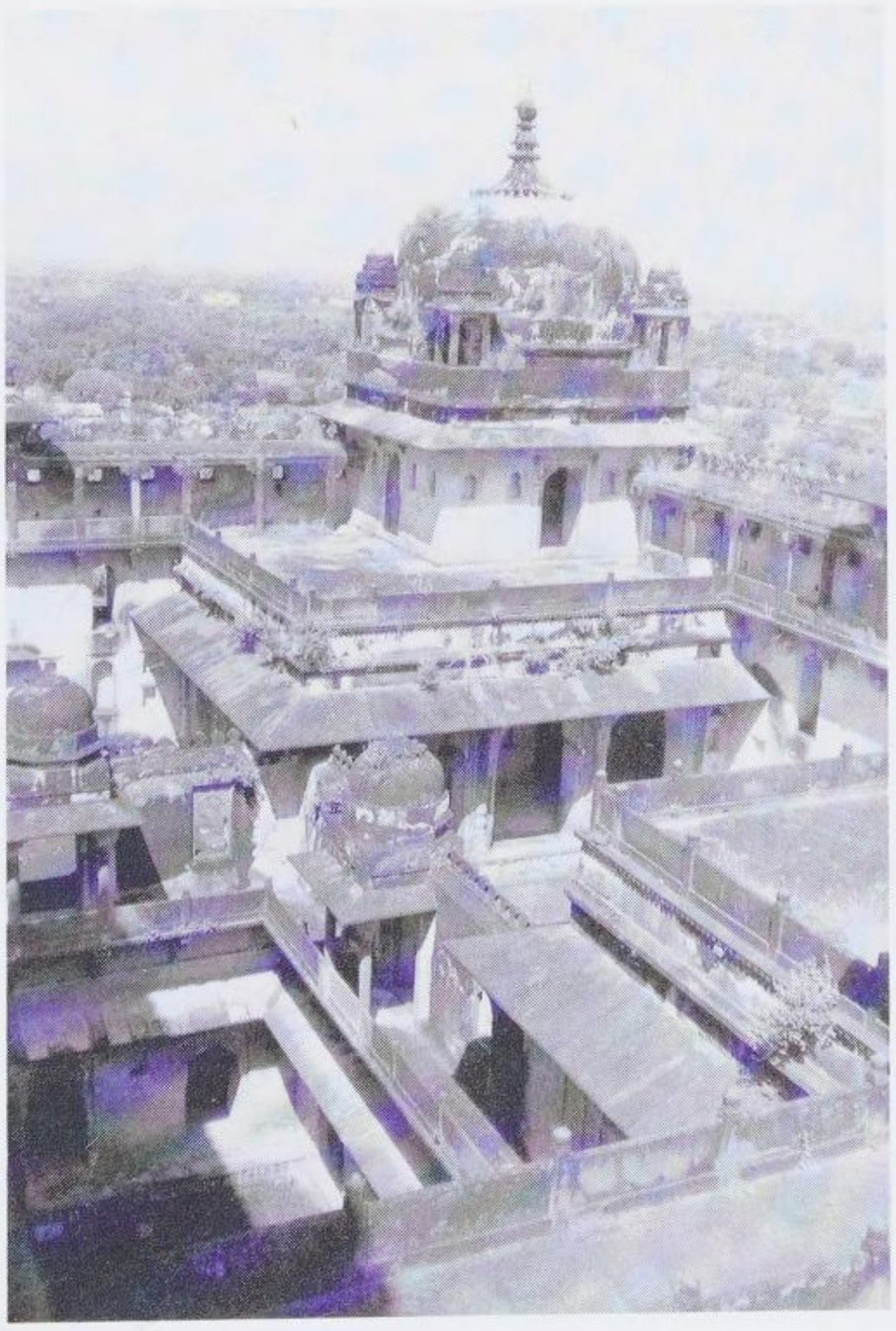


100. Datia; a linking bridge in the Govind Mandir

101 (left). Datia; the upper storeys of the Govind Mandir's tower

102 (centre). Datia; the north-west corner in the Govind Mandir

103. Datia; the centre of the north range in the Govind Mandir



104. Datia; upper levels in the Govind Mandir

earlier Bundelkhand palaces and does not form a part of the same series. All of the ideas, carefully developed in the Orchha palaces and perfected in the Govind Mandir, were set aside. The palace of Raja Subha Karan is, like the majority of

105. Datia; the south front of the Govind Mandir

Rajput palaces outside Bundelkhand, a vast asymmetrical pile which underwent frequent alteration and addition, in this case even into the nineteenth century. Indeed, as it survives, so much of it belongs to this later period that it properly forms a part of another subject.

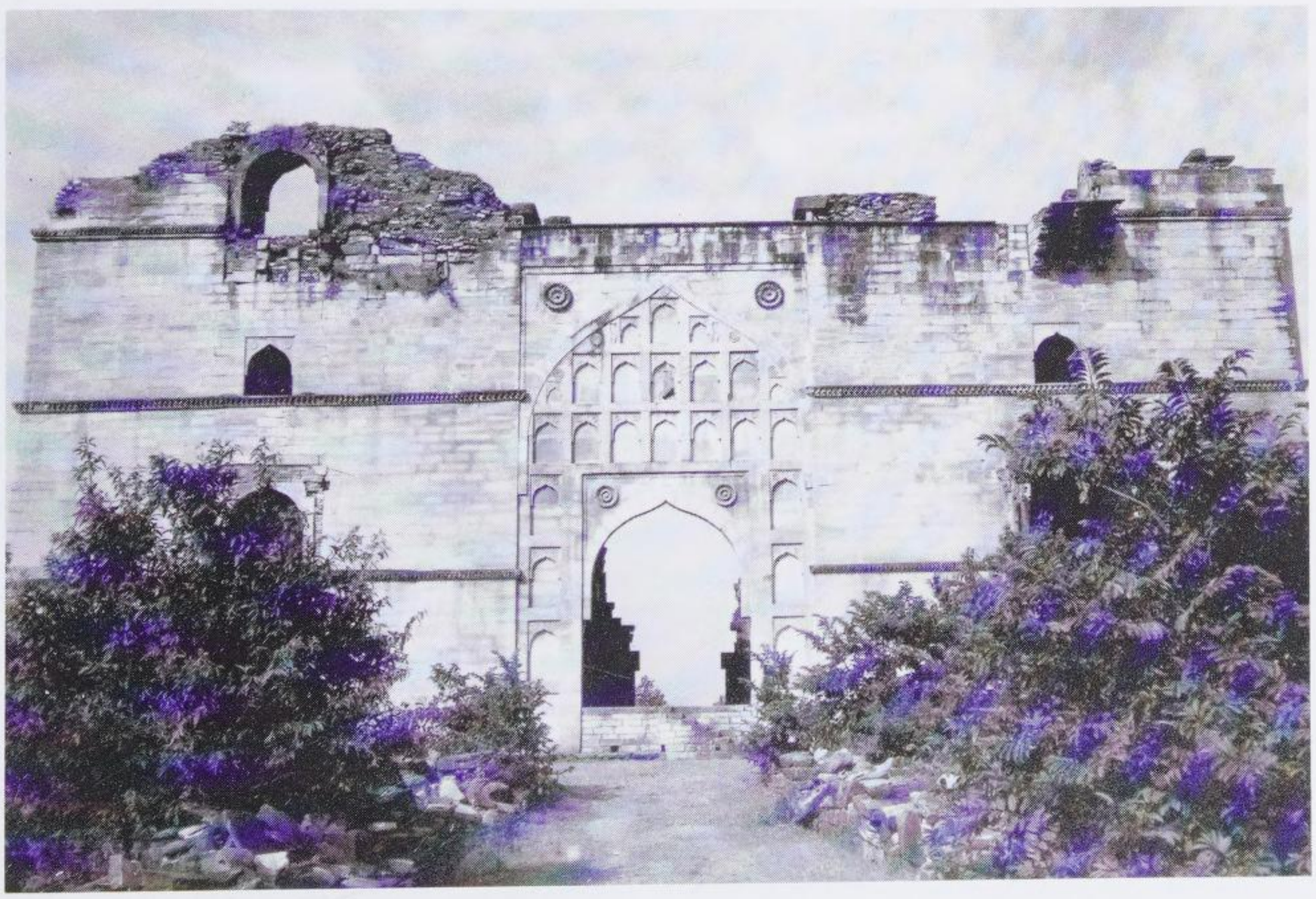
The four principal palaces of Bundelkhand differ from the majority of Rajput *garh* palaces in being symmetrical in their planning and massing. An explanation for this is offered by Percy Brown, who attributes it to the influence of Indo-Islamic architecture. Indeed he gives chapter and verse: he traces the design to the Koshak Mahal, a fifteenth-century palace at Fatehbad near Chanderi.[6] Brown's idea is one that is freely repeated,[7] and so it is worth examining.

At first sight there does seem to be some similarity between the Koshak Mahal and each of the four Bundelkhand palaces, particularly as that first sight is of the exterior [106]. In common is the square plan and the rather plain and severe exterior wall which is unpierced and articulated by prominent string-courses. There, however, the similarities end, and they are insufficient to justify Brown's identification of the Koshak Mahal as the archetype of what he calls 'the Bundela style'.[8]

As soon as the interior of the Koshak Mahal is considered, it is plain that in conception the Koshak Mahal is thoroughly different from the Bundelkhand palaces. It consists of four blocks of building placed so close together that they are separated only by corridors which admit light and air [107]; the ends of these corridors are blocked by continuations of the outer wall, so giving the whole assembly its appearance – from the outside – of solidity. Each of the Bundelkhand palaces, on the other hand, consists of a courtyard surrounded by ranges which recede in staggered stages towards their summits, and these ranges are protected by an outer sheer wall [94, 99]. The Bundelkhand palaces, in short, are courtyard buildings, while the Koshak Mahal is not – and this is a fundamental difference in planning. The suggestion that the planning and massing of one are derived from those of the other is startling; it was a strange aberration on Brown's part, which has gained currency through uncritical repetition by others.

Another hypothesis is that the plans of the Bundelkhand palaces (and especially that of the Govind Mandir at Datia) can be associated with the *paramasayika*, which is one of the *vastupurusha mandalas*. Although this suggestion is made elsewhere,[9]

107. Fatehbad, Chanderi; a sketch plan of the Koshak Mahal (not to scale)



106. Fatehbad, Chanderi; the Koshak Mahal (1499)

iv. Gwalior; the Man Mandir – the north range of the outer courtyard

it is nowhere examined critically, and such an examination is proposed now. To begin with, the *mandala* itself should be explained.

The *silpa-sastras* prescribe that the plan of any building be based on the *vastupurusha mandala* (literally, the mystic diagram of the architecture of Man). This *mandala*, they explain, can be drawn in thirty-two different ways.[10] According to the first method, called *sakala*, it is a simple square; according to the second method, called *pechaka*, it is a square subdivided into four equal squares; according to the third the square is subdivided into nine equal squares; according to the fourth into sixteen; and so on, until the thirty-second method, according to which the square is subdivided into 32^2 – that is 1,024 – equal squares. We have, then, a series of grids of increasing complexity from 1×1 to 32×32 squares.

In any grid of the series, the smaller squares, the subdivisions which make up the whole – usually called the *padas* – are assigned to the control of particular deities – the *padadevtas*. This assignment is not made quite democratically: Brahma usually occupies several *padas* in the centre of the *mandala*, a select band of other deities occupy a few *padas* each immediately around him, and lesser deities and demons occupy single *padas* each around the edge of the *mandala*.

The *mandala* has, of course, a cosmological significance, and although the origins of the *mandala* are, for the present purpose, less important than its uses, its meaning may be explained briefly. The *mandala* represents the efforts made by Brahma and other deities to suppress a formless demon of chaos. Brahma imposes a form on this being, suppresses it – rather literally – by sitting on it, and then encourages

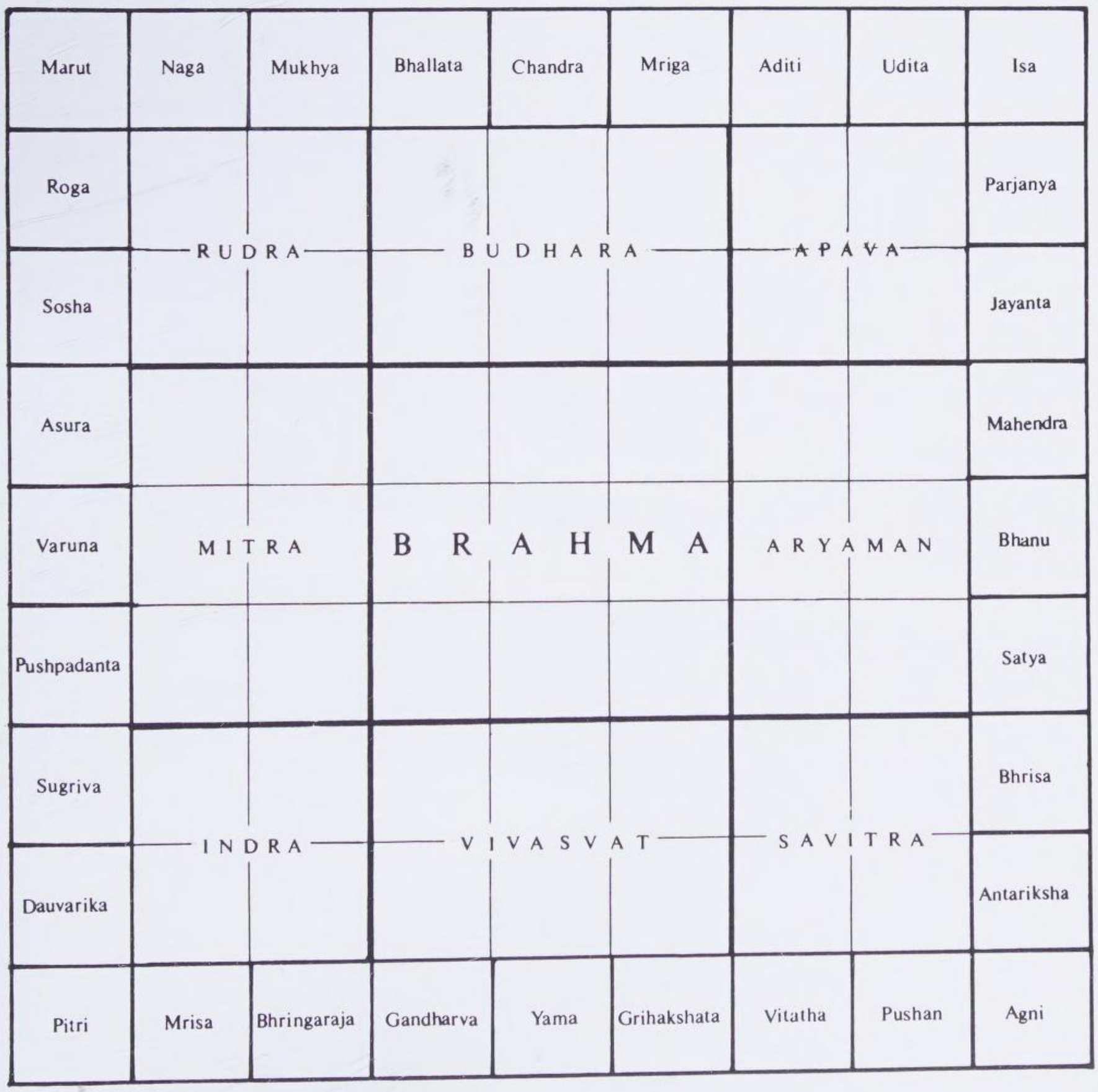
the other deities to come and help him by sitting on the being's extremities. So the gods are assembled on this square in order to impose form onto chaos. Translating mythology into the realm of architecture, the imposed order becomes a strict artistic convention.

The architect, when he comes to plan his building, has a choice: he may use any one of the thirty-two versions of the *mandala* – not a very wide choice, let it be admitted. There is no prescribed size to any of the versions; the architect's choice is not guided by considerations of that type – he is more likely to choose the version recommended as the most auspicious. It is generally agreed amongst the *silpa-sastras* that the ninth version, the *paramasayika*, is usually the most auspicious of all.

The *Manasara* – a *silpa-sastra* composed, according to its editor P. K. Acharya, at some stage between 500 and 700 AD – is particularly pertinent in this context because it contains a chapter on the planning specifically of palaces.[11] In this chapter it is asserted that the plan of a palace should be based on the *paramasayika*.[12] In an earlier chapter the treatise explains how this *mandala* is drawn [108].[13]

The association between this diagram and the plans of the Bundelkhand palaces is not as simple as might be supposed: it would not be true to say that the architects of Bundelkhand have obeyed the prescriptions of the *silpa-sastras*. To show this, those prescriptions should first be explained precisely.

The *Manasara* explains not only how to draw the *paramasayika* but also how to



108. The *Paramasayika*, the ninth *vastupurusha mandala*, drawn according to the directions of the *Manasara*

use it. The cardinal point is that each of the different rooms of the palace should be assigned to a particular deity and sited on his or her *pada*.[14] The palace is considered as an aggregate of the private council room, the coronation room, the arsenal, the treasury, the granary, the raja's bed-chamber and so on; each of these rooms is assigned to a particular deity, and its position in the palace is determined by the position of the deity on the *mandala*. In the Bundelkhand palaces this prescription, the fundamental point of *mandala* planning, is totally ignored. Most of the rooms – as in other Rajput palaces – have no single fixed function. Rooms of a similar type, and therefore probably used for a similar range of activities, are found scattered symmetrically about the whole of a palace. And there are specific contraventions of the rules; for instance, the granary, which is supposed to be built on the *pada* of Bhrisa on the east side, in fact occupies a huge substructure in the palace of Datia, an area underneath the whole of the palace. So the principal rule of *mandala* planning is broken both in spirit and in specific details.

An association between the *mandala* and the plans of the Bundelkhand palaces does, however, exist. It is a matter of pattern: the plans of the Bundelkhand palaces look like the *mandala*. Each is a square which has been subdivided regularly and symmetrically but not equally into smaller component parts; there is a fringe of many smaller parts around the edge, and a single and largest element in the centre.

What the *Manasara* has to say about the treatment of the centre – Brahma's *padas* – is particularly significant in relation to the difference between the Orchha palaces and the Govind Mandir at Datia. According to the *Manasara*, nothing should be built in the centre of the plan.[15] This is one important prescription which of course has been obeyed in all of the three palaces at Orchha. To say, as the *Manasara* says, that a palace should be square and have nothing in its centre, is to say that a palace should be a courtyard building. And this is precisely what the architects of Bundelkhand have built at Orchha, three times in succession [94].

The Govind Mandir at Datia also has a courtyard, but this has the tower in the middle of it which, *prima facie*, breaks the rule previously obeyed [99]. But again, although the letter of the law is broken, there is a more straightforward visual correlation between the *mandala* and the plan. The plan of the top storey of the tower echoes the tops of the ranges, with a domed pavilion standing on a terrace formed by the roof of the storey below. The plans of the remaining four storeys of the tower together constitute a series of variations on a theme. The theme is a square divided into nine sections in a three-by-three pattern: each storey makes the same three-by-three pattern in a different way. This repetition enhances the structural strength of the tower, but it is not essential to it. And the manner in which very different effects have been created using the same basic plan is most ingenious, and suggests that that plan has some particular significance. It is surely no coincidence that the central plot of the *mandala* (occupied by Brahma) is a square subdivided in a three-by-three pattern; nor that on both plan and *mandala* this central three-by-three plot is linked to the outer fringe by four connecting areas, one on each side.

There is another, quite independent, justification for the Govind Mandir's tower. The *vastupurusha mandala* was used more commonly in temple architecture and there the central plot was the prescribed position of the *garba griha*, the inner sanctum where the image of the divinity is placed. Furthermore, in the cosmological symbolism of the plan, the centre stands for Meru, the sacred mountain which supports the universe, and this mountain is embodied in the temple in the form of the *sikhara*, the tower which rises immediately above the *garba griha*. The Govind Mandir's tower, on the central plot, could therefore be regarded as a secular version of a temple *sikhara*. And just as in temple ritual all action is focused towards the central point,[16] so the dynamics of the Govind Mandir focus on the tower: it is the hub of the

v (facing). Orchha; part of the upper storeys within the Jahangir Mandir (c. 1605)

palace, visually its dominant feature, and the residence not of a god or the image of a god but of a king, and a king with pretensions to divinity.

A similar use of the *mandala*, and a similar hubris, are evident in an earlier building: the so-called Diwan-i-Khas of Akbar's palace at Fatehpur Sikri.[17] This enigmatic structure – designed, like the rest of the palace, by Hindu craftsmen in the 1570s – represents perhaps the first attempt to translate the religious significance of the *mandala* into a secular building. It also demonstrates, incidentally, how craftsmen could pursue their experiments irrespective of the religious denomination of their patron.

The association between the Govind Mandir's tower and a temple *sikhara* is made complete in a modern palace which in some respects echoes the Govind Mandir: the Udai Vilas at Dungarpur, begun in the eighteenth century and completed in 1945.[18] In the centre of this palace's courtyard is a tower which echoes that of the Govind Mandir but which is built on the site of an ancient Siva temple; the ground storey contains its *garba griha*.

It is instructive to establish precisely what the connection between the *paramasayika* and the plans of the Bundelkhand palaces is and what it is not. The prescriptions of the *silpa-sastras* on palace building have not generally been obeyed. In some fundamental respects they have not been obeyed here. It is therefore highly unlikely that the architects of Bundelkhand considered that it was time they obeyed the *silpa-sastras* and so looked up the rules with the intention of building according to them. It is very likely that the architects of Bundelkhand would not have needed to look up the *paramasayika*. The shape of the *mandala* was a part of the standard Indian architectural vocabulary and would have been always at the back of an Indian architect's mind. It was this shape – not the principles of its design, but the shape – which, as a remembered image, influenced the planning of the palaces of Bundelkhand.

But whether the rules have been broken or obeyed, the plans of these palaces can be fully explained with reference to those rules, laid down in the ancient Hindu texts. In attempting to explain their symmetry we need make no reference to Islamic architecture; we should examine rather the roots of the Hindu tradition.

In no other Rajput palaces is the symmetry of the plan as thorough or as essential to the design as in the Bundelkhand palaces. But even if the majority of the Rajput *garh* palaces are quite asymmetrical and irregular in their planning, still there are a few others which, if not symmetrical, are at least regular in plan.

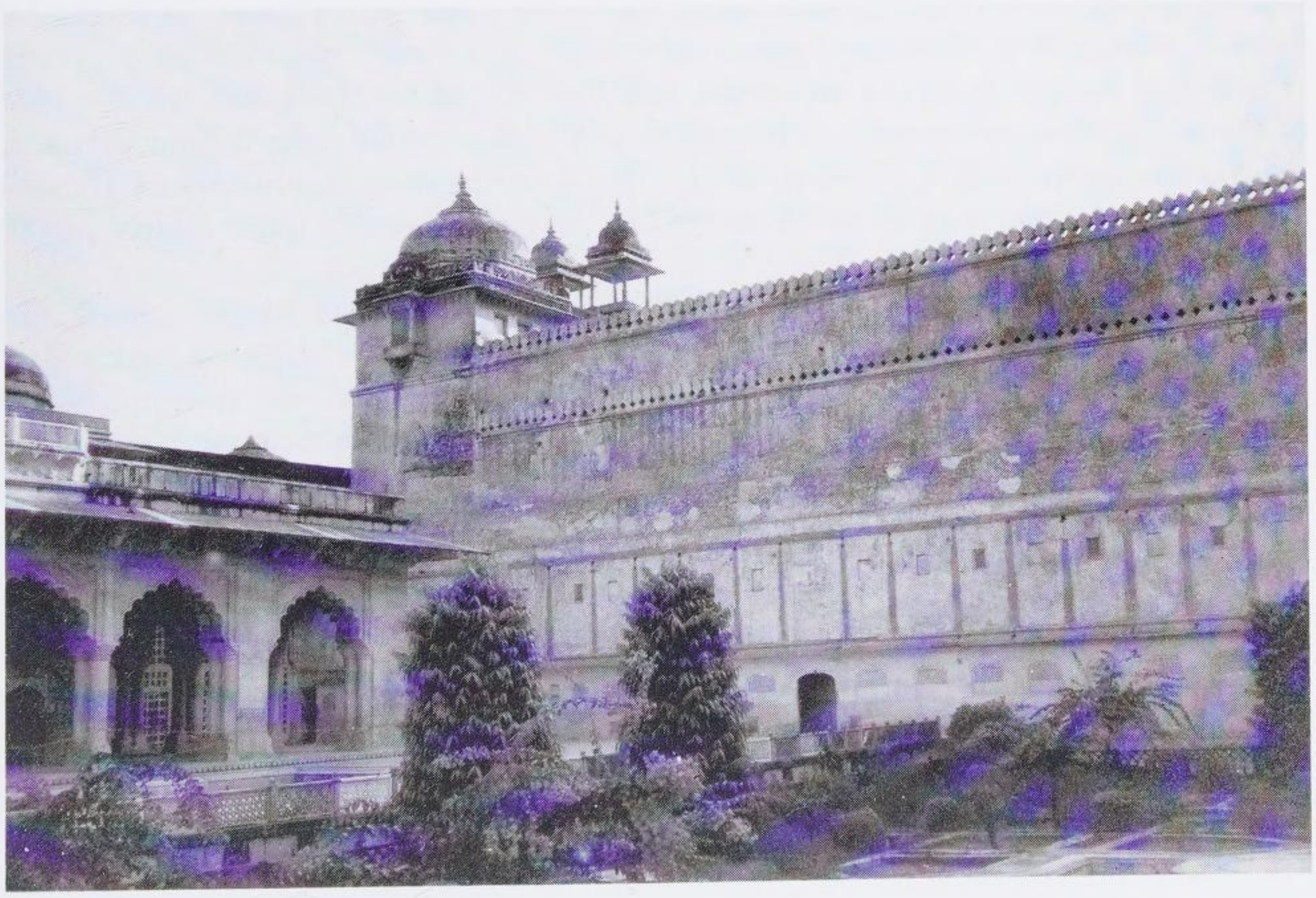
The earliest palace of this group is the Man Mandir at Gwalior, built around 1500, which is rectangular in plan and is articulated by regularly spaced round towers [68]. The smaller Gujari Mahal, also at Gwalior, was built about the same time and in a similar form [74]. The next in the group is the palace of Rana Ratan Singh (1528–31) at Chitor which, though irregularly planned internally and much altered, was originally contained within a rectangular outer wall and articulated by almost regularly spaced octagonal towers [55]. Soon after come the first two of the Orchha palaces, the Ramji Mandir and the Raj Mandir, and the *zenana* portion of the *garh* palace of Udaipur [113]. The Udaipur *zenana* is one of the oldest parts of that palace and was built about 1570, immediately after the moving of the state's capital to Udaipur. The *mardana* of the palace is quite irregular, but the *zenana* consists of even ranges around a regularly formed *chowk* and the disposition of the apartments within those ranges is symmetrical. Next come Bir Singh Deo's palaces, the Jahangir Mandir at Orchha and the Govind Mandir at Datia. The last palace of the group was built a century later: it is Raja Badan Singh's palace at Bharatpur (from 1733) [223].

But the most ambitious use of Hindu principles of symmetrical planning within

the Rajput school is the planning of the whole city of Jaipur from 1727. The entire city plan is a square divided into nine smaller squares in a three-by-three pattern. Here again the principles of the *vastupurusha mandala* are reinterpreted. This time it is not the ninth of the series, the *paramasayika*, but the third, called *pitha*, which is reinterpreted. The fundamental rules are ignored but the pattern is adopted as a basis for the plan, not of a palace, but of a whole city, the subdividing lines becoming the principal streets. The city palace covers the whole of the central plot – Brahma's *pada* – and so echoes, on a vast scale, the central tower of the palace of Datia.

There is another feature of the Bundelkhand palaces which makes them typical of a minority of the Rajput *garh* palaces. In most of the palaces the men's quarters – the *mardana* – and the women's quarters – the *zenana* – are quite separate; but none of the Bundelkhand palaces has a well defined *zenana* distinct from a *mardana*. Presumably it is this which accounts for Hermann Goetz's suggestion that each of the Bundelkhand palaces is only a *zenana* and nothing else.[19] Although it is true that their external balconies are enclosed by *jali* screens [92], this idea is untenable: for if all these four palaces are *zenanas*, then where is the *mardana*? It is less than likely that the rajas of Orchha built four *zenanas* one after the other and never built a palace for themselves.

We encounter the same problem in a few other Rajput *garh* palaces. There is no portion of the Man Mandir at Gwalior which could have served as a self-contained *zenana*. There is, of course, the separate palace, the Gujari Mahal, built in the outwork of the fort, and that clearly was a *zenana*; but according to historical tradition it was built for one particular woman,[20] and the outwork is hardly a suitable place in which to accommodate all the royal women (the resident of the Gujari Mahal, the Gujar wife of Man Singh, was accommodated outside the main fort allegedly because of her low caste). We would expect to find the main palace divided into separate areas for men and women. Percy Brown accounts for the absence of such a division in the same way that Goetz accounted for the similar problem in the Bundelkhand palaces: he suggests that the whole of the Man Mandir is a *zenana*,



109. Amber Palace; the northern wall of the south court, from the garden court

this time on the intriguing evidence that the doorways are small.[21] This hypothesis is, of course, open to the same objection: if this is the *zenana*, then where is the *mardana*?

Such a division is not found, either, in Rana Kumbha's palace at Chitor. Some writers identify one wing of the palace as the *zenana*, but there is no evidence to support their identification.[22] There is another area, in the main body of the palace, which seems to have been reserved for women – because of the presence of *jali* screens across the windows – but this area is not self-contained; it is open to the rest of the palace [53].

In the palace of Amber, there is one courtyard which is usually called the *zenana*:[23] that at the south end of the palace. However, a close examination of this courtyard reveals two important factors. The first is that it is the oldest part of the palace; that the better-known courtyards are later additions to its north end. A high wall separates the *zenana* courtyard from the garden courtyard to the north and it is clear, from the design of the north face of this wall, that it was originally an outside wall [109]; it has become an internal dividing wall only by the addition of building round it. So the furthest courtyard once stood as a separate and free-standing entity. (Incidentally, considered as such, it will be seen that the palace of Amber, as originally built, owes a great deal in planning and general arrangement to the Bundelkhand palaces; it is indeed another member of that series of regularly planned Rajput palaces outlined above. It is contemporary with the Jahangir Mandir at Orchha.)

The second thing to be noticed about this courtyard is that it was not originally a *zenana*. The features which distinguish it as a *zenana* – the *jali* screens and obscuring walls – are all later additions. The building has been converted into a *zenana*: open arcades have been blocked up and once open, long balconies have been converted into narrow, dark corridors [119]. As it originally stood, therefore, the Amber palace consisted of this single court, and – like the palaces of Chitor, Gwalior and Bundelkhand – was apparently not divided into *mardana* and *zenana*; that distinction came later.

The Amber court thus gives the clue to the explanation of this peculiarity. The palaces mentioned are among the oldest surviving Rajput palaces. The problem is not encountered in later palaces, where the distinction between *mardana* and *zenana* is always clear; but it is encountered in all of the older *garh* palaces. It might be inferred from this that the segregation of women in Rajput royal families occurred rather later than is generally supposed, but that would be going too far: the idea of the segregation of women in Hindu society is a very old one; it long predates the Muslim invasion of India, and the idea that a royal palace should contain accommodation for women away from the public gaze is expressed quite clearly in the *Manasara*.[24]

What we perhaps can infer is that in the early period of the Rajput school, the *garh* palace performed a different function from that which it acquired later – that it was designed for the use of a more restricted group of people. It seems likely that the early *garh* palaces were intended to accommodate the women of the royal family and also the male members of the immediate family, who in the later period had access to the *zenana* (though they did not live in it). The people excluded from these buildings who were to be admitted into the later buildings were the nobles, the more distant male relations of the raja, the courtiers, ministers of state, and the palace guard. The introduction of these people into the *garh* palace necessitated the creation of a quite distinct *zenana* portion, to which they were not admitted. In other words, making the palace more public involved the introduction of a private portion in which the women could be protected from the public.

These early palaces are not *zenanas*, then, but private royal palaces. They combine the functions of the *zenana* and the private portion of the *mardana*. The remainder

of the court – the nobles, ministers and so on – was presumably accommodated and conducted its affairs either in a camp, or in other buildings in the town, of which there are plenty in every case. In the fort of Gwalior there is a free-standing *sabha* a hundred yards to the south-west of the Man Mandir, suggesting that affairs of state were conducted outside the purely residential palace. And Rana Kumbha's palace at Chitor and the Raj Mandir at Orchha similarly each have a *sabha* attached to an outside wall and not integrated into the main body of the palace.

That the early *garh* palace was a private royal palace is also suggested by the Sanskrit term *antahpura*; though often taken to refer to a *zenana*, this literally means 'inner city', indicating a traditional distinction between outer and inner, or public and private, rather than between men and women.

The *garh* palace's change in function helps to explain the claim, referred to above, that the Govind Mandir has never been inhabited. The Govind Mandir may be considered as the last palace of its type, which was outdated, in terms of social function, by the time that it was completed. Very soon after it was built, Datia became an independent state. The first rajas of Datia perhaps felt that they needed a palace built according to the new ideas, one to which they could admit their nobles, ministers and visitors; and so abandoned the Govind Mandir and built the second palace in Datia – referred to only briefly above, and there described as much more like the majority of Rajput palaces in its planning and general arrangement.

One might be inclined to feel that the Govind Mandir is wasted by never having been lived in, and so it is reassuring to find that the allegation is not wholly true: the officer of the Archaeological Survey of India, who took control of the palace in 1957, grumbles in his report that he found the Govind Mandir full of squatters and had to remove them and what he calls 'their accretions'.[25]

Six

Amber and Udaipur: The Developed Theme

Soon after Amber had been founded by Mina tribesmen early in the tenth century, the Kachwaha Rajputs (who had previously ruled in Gwalior) established themselves in an adjacent region, founding Dhundar as their capital in 967 AD. Two centuries later, about 1150, they took Amber from the Minas and it remained the Kachwaha capital until the move to Jaipur in 1727. As a Rajput capital, Udaipur is comparatively modern, since the capital of Mewar was transferred there after Akbar's sack of Chitor in 1567. However, the site was presumably chosen not only for its natural defences, the Aravalli hills, but also for its ancient associations; for it is only three miles from the ancient site of Ahar, established by the ancestors of the Ranas of Udaipur and giving them their family name Aharya.

Some authorities date the foundation of Udaipur as 1559.[1] If this assertion is based on the foundation of the artificial lake, Udai Sagar, which was built by Maharana Udai Singh between 1559 and 1565, then it is unwarranted, for Udai Sagar lies nine miles outside the city. Those who insist on the earlier date are perhaps guided by a partisan desire to depreciate the importance, for Mewar's affairs, of Akbar's sack of Chitor; but in so doing they implicitly stress the importance rather of the slightly earlier sack of Chitor, by Bahadur Shah of Gujarat in 1535, and in this they are unwittingly correct. With the success of the earlier siege it became clear that this important fort, which previously had not been successfully sacked since 1303, could no longer be maintained against the neighbouring growing powers, jealous of Chitor's strategic importance. Udai Singh himself, remembering Bahadur Shah's siege, departed from Chitor before Akbar's siege began in order to escape the fate of the garrison he left behind, and so brought on his head the scorn of all who admire Rajput valour.[2]

Evidently, then, both sieges helped to necessitate the transfer of the state capital to Udaipur. But even so, neither siege was the cause of that town's foundation: Abul Fazl records that at the time of Akbar's siege Udai Singh was sought in Udaipur[3] – showing that the town already existed. Furthermore, another artificial lake, Pichola Lake, which is actually within the city, was allegedly formed late in the fourteenth century, again suggesting that a settlement of some sort existed at Udaipur long before it became the state capital.

However, the name Udaipur self-evidently dates from Udai Singh's association with the place; and the oldest parts of the Udaipur City Palace, or *garh* palace, date from the period after 1567. The palace of Amber was begun much earlier, but by an accident of history the oldest surviving parts are of the same age. Both palaces were built mainly in the seventeenth century; both therefore span the period of transition from the early phase to the mature Rajput style. Abandoned in 1727, the palace of Amber did not undergo any alterations in the later eighteenth century;

110. Udaipur City Palace; the east range of Rajya Angan Chowk (1567–72)

the palace of Udaipur continued to undergo alteration and addition even into the nineteenth century, but the oldest parts and their original forms are still discernible.

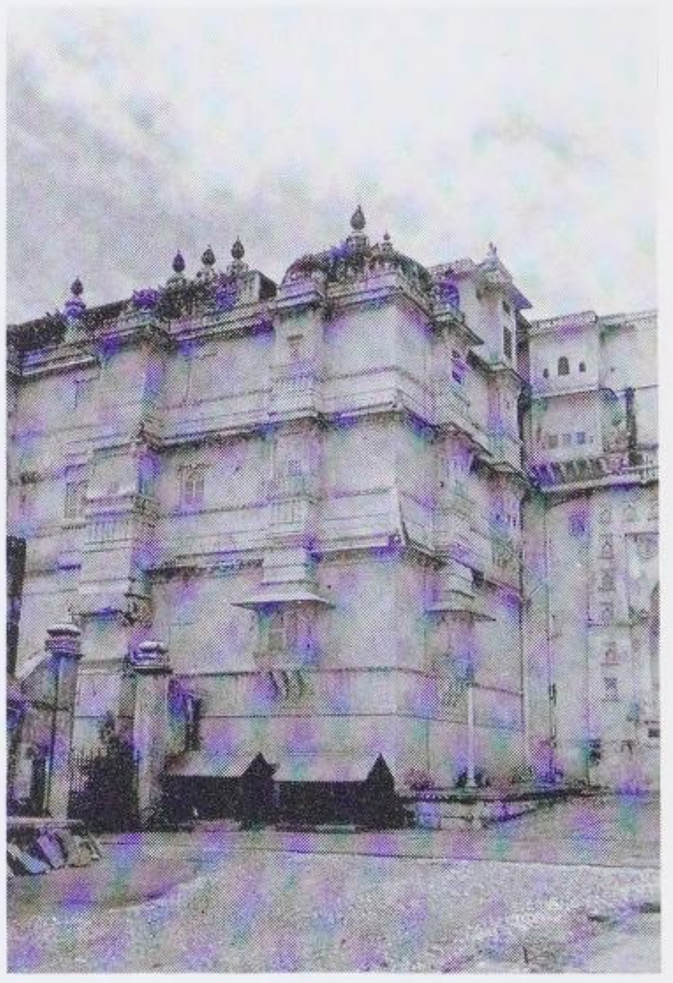
Beginnings in Udaipur

The palace of Udaipur began with a false start. This is the Moti Mahal, situated on Moti Magri, a hill in the north-west corner of the town. Its few surviving walls show a style and method of construction precisely similar to those of the Chitor palaces. It was abandoned after very little progress had been made, presumably because of the lack of space on the hill for substantial further development.

The palace proper was begun on a more open site much further south, on the east bank of Pichola Lake [14]. The earliest parts are the large *sabha* at the south end of the *mardana* of the palace; the Sileh Khana, slightly further north; the small Rajya Angan Chowk, situated above the Sileh Khana [110]; and the rooms which flank this *chowk* – the three treasury chambers on its east side and, on its west, the temple Nau Choki Dhuni Mata. The extensive *zenana* which lies to the south of the *sabha* divides roughly into two parts: the Badal Mahal block [111] and the ranges surrounding the spacious Laxmi Chowk, slightly further south. The first of these parts, at least, is of the same date as the earliest parts of the *mardana*; and in the same style as them.

This style represents a continuity with the old capital. As at Chitor, the architecture here is predominantly trabeate, with deeply carved imitation temple columns, often with elaborate corbel capitals. The arcuate system of construction is used in a purely functional manner; that is to say, with no sense of its aesthetic value. The huge vault of the Sileh Khana makes possible the wide uninterrupted space of the room, and is of sufficient strength – which a trabeate construction would not have been – to support the many storeys of palace apartments subsequently piled on top of it. It is, in addition, visually striking, but this aspect is wasted here in the armoury, and no use of such a visually powerful form is made in the early residential or ceremonial parts of the palace. In the same way, Rana Kumbha's palace at Chitor rests on a large vaulted substructure, but little use of the arcuate system is made in the inhabited parts of the palace. In Mewar before 1600, the arch was only a

111. Udaipur City Palace; the Badal Mahal (1567–72)



technical device and not yet also an aesthetically preferred form.

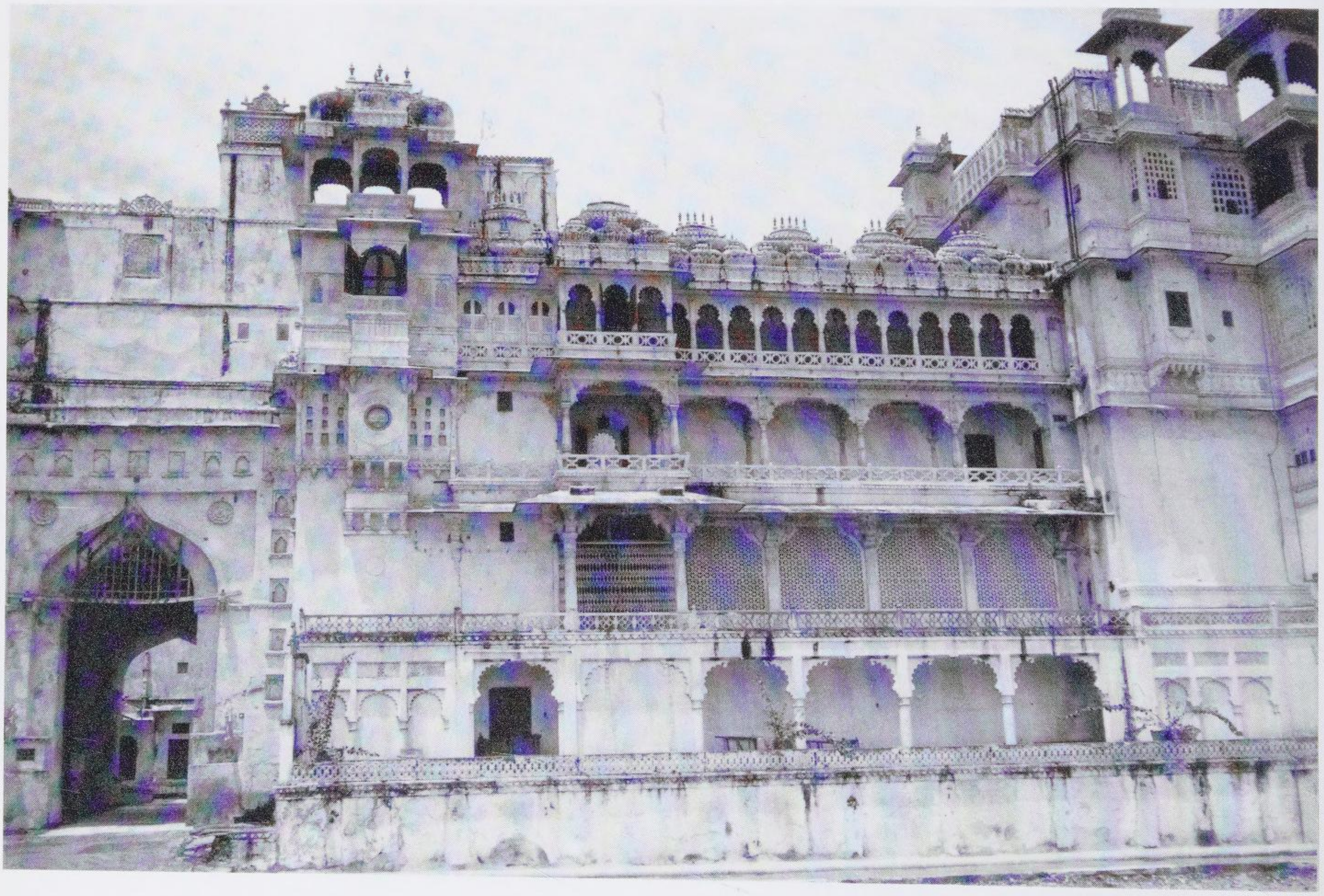
These early apartments are heavy and enclosed. Massive forms define surprisingly small spaces (except in the Sileh Khana) so that there is a sense of unnecessary strength. This is the continuing legacy of the style's temple progenitors: the sculpted forms almost fill the very spaces they create, so that they seem to exist for themselves rather than to create useful spaces.

Apart from this general style, there are also particular echoes of the Chitor palace, suggesting a deliberate attempt to re-create it. The *jarokhas* projecting from the outside facades of the Badal Mahal of the *zenana* stack to form engaged towers just like those on the north front of Rana Kumbha's palace [*i*]. The Sabha is a hypostyle hall like the *sabha* attached to the south-east corner of Rana Kumbha's palace, though the Udaipur columns are more richly carved. Miniature paintings show that it was originally – also like the Chitor *sabha* – open along the side facing the large space in front of the palace [4, 112].[4]

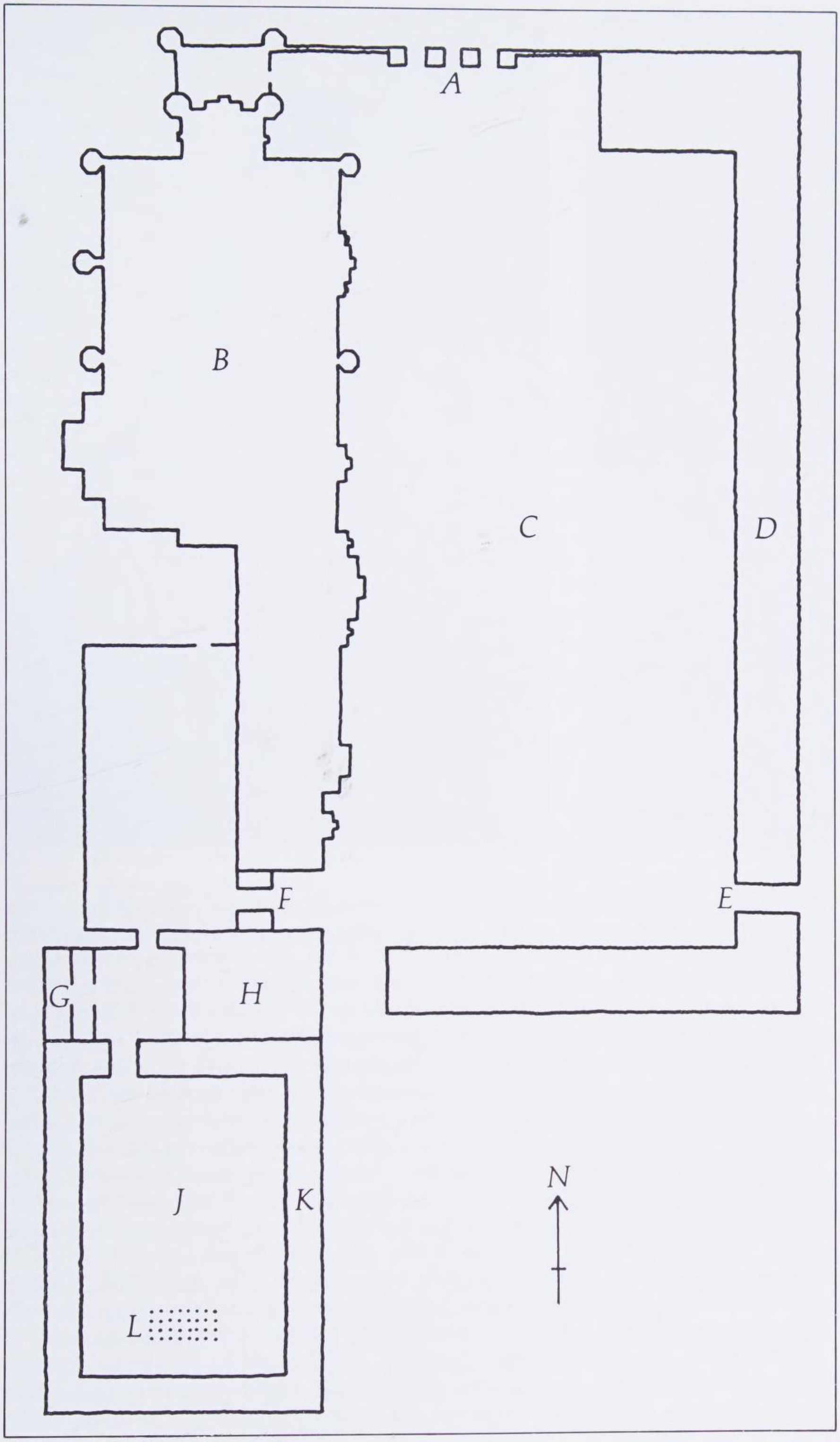
This open, level space is itself another echo. At Chitor it is natural; here it has had to be created artificially: it is a vast terrace supported on vaults [113]. But the vaults are concealed and so illustrate again the early Mewari attitude to the true arch: its structural usefulness is fully understood and exploited – indeed the terrace is a remarkable feat of engineering – but its aesthetic value is denied.

The Badi Pol, the gate between the palace complex and the main bazaar of the town, derives both its name and its function from a counterpart in Chitor; stylistically too it is not dissimilar.

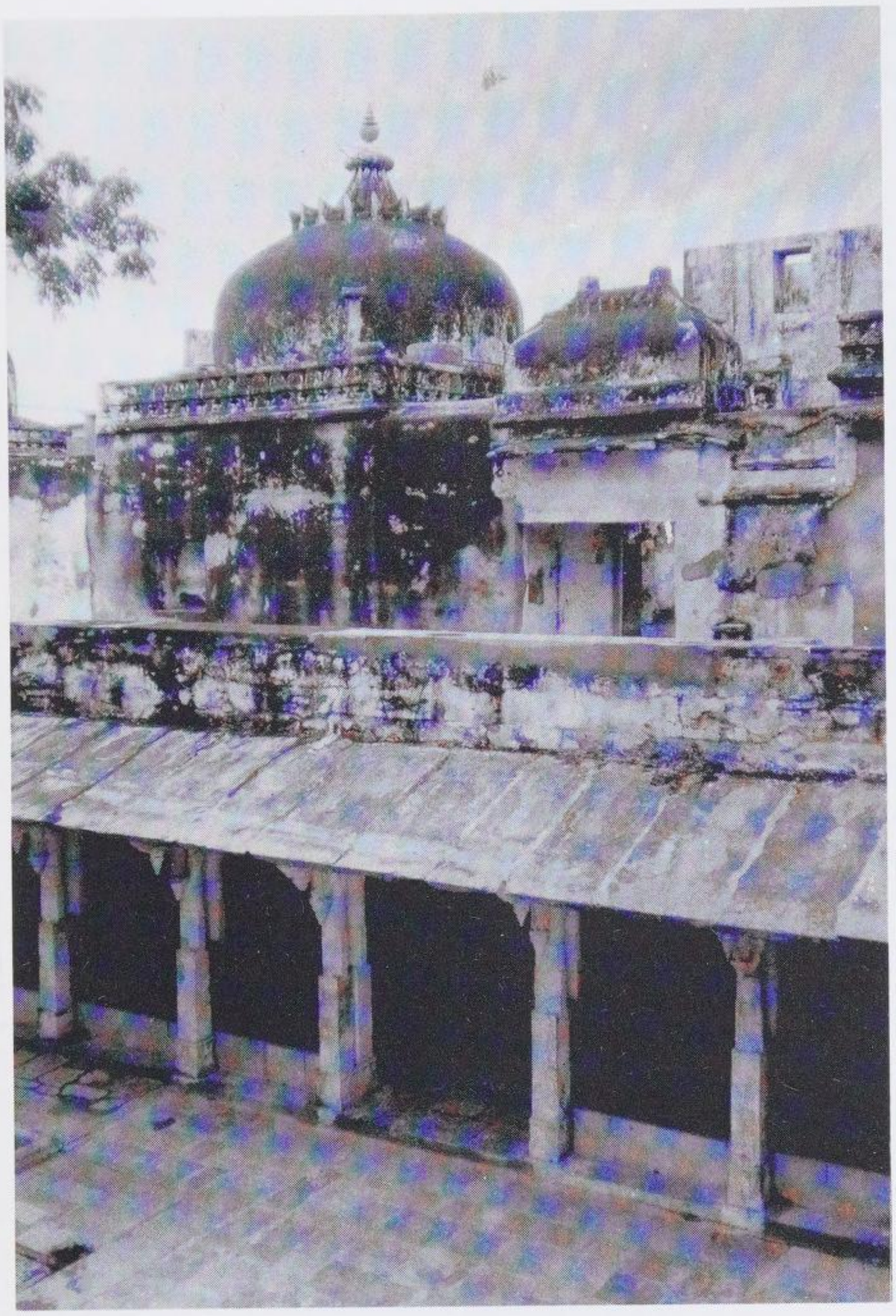
In spite of this last echo it seems likely that the original principal entrance to the palace complex was not the Badi Pol but the Suraj Pol, at the eastern edge of the terrace. The whole palace is oriented to face east, suitably enough for the

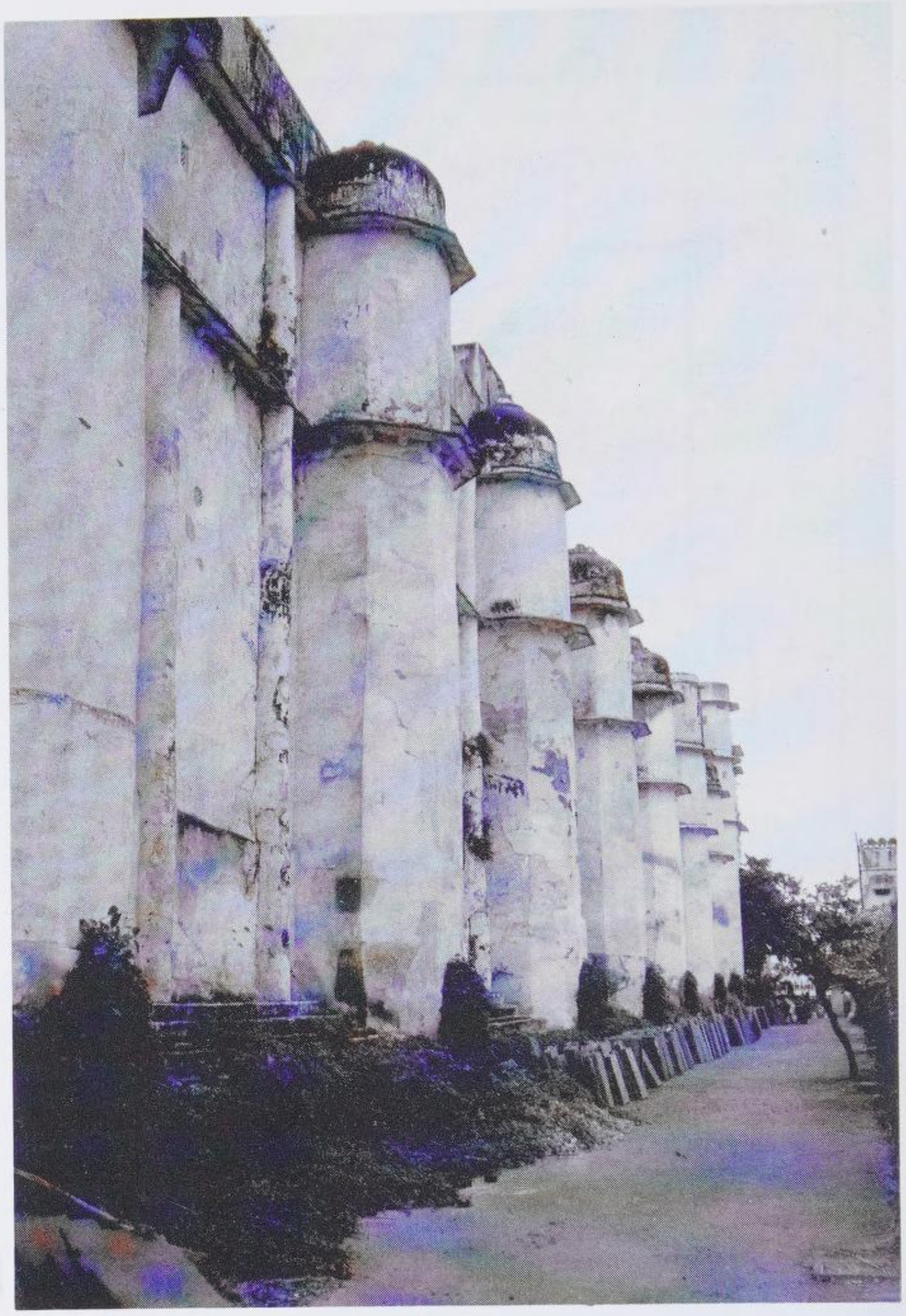


112. Udaipur City Palace; the southern end of the east front, showing the now enclosed Sabha above the basement storey and (left) the Toran Pol (both c. 1570); with later apartments above



113. Udaipur City Palace; a sketch plan (not to scale): *A* – Tripolia; *B* – *mardana* (see plate 131); *C* – terrace, supported by a vaulted substructure and bordered by *D* – ranges of stables and guard houses; *E* – Suraj Pol; *F* – Toran Pol; *G* – temple; *H* – Badal Mahal (*zenana*); *J* – Laxmi Chowk, surrounded by *K* – *zenana* ranges; *L* – open columned hall





114. Udaipur City Palace; the south range of the *zenana chowk* (1567–72)

115 (right). Udaipur City Palace; the east front of the *zenana*

palace of a dynasty which claimed descent from the sun, and the palace of a city named after a ruler himself named after the rising sun. The Suraj Pol (or Sun Gate) is in line with the Toran Pol, the main gate of the palace building proper [112]. The Toran Pol, which one could enter still mounted, leads into a large *chowk*, flanked by two smaller *chowks* which lead respectively to the *zenana* and the *mardana*. The *mardana* has also a pedestrian access in the east front, the Mardana Deodhi; the cusped arches over this rather modest doorway (now used as the main entrance of the palace) are not original, for early paintings show a plain pointed arch [4].[5]

The ranges around the main court of the *zenana*, though much altered, were originally all of the same design. A clear idea of this original design can be gained from the south range, which has survived intact [114]. On the ground floor there is a cloister with coupled temple columns supporting lintels. These columns, carved from an unattractive grey stone, are covered with whitewash (the similar columns in the *mardana* – for example in the Sabha and Rajya Angan Chowk – made of the same stone, were probably similarly whitewashed). The application of many layers over the centuries has obscured much of the deep decorative carving. Protruding from the columns are curved brackets which support the *chajja*. At the back of the cloister are small enclosed chambers, and the roof of the cloister forms a terrace on which there are regularly placed square chambers, each with a stilted dome. Between each pair of chambers is a small entrance lobby, surmounted by

a rectangular-based dome. This upper storey, the main accommodation storey, could be divided into separate apartments, with any number of chambers to each rani.

That all of the ranges of the *zenana* were originally of this form is evident from one of the late eighteenth-century murals depicting the palace, in the Chitram ki Burj of the *mardana*. The west range in particular has been much altered: first, at an early date, by the deepening of the cloister by an extra bay – the brackets on the older (now inner) line of columns, rendered redundant by the relocation of the *chajja*, were smashed off, but the patches where they once joined the columns are still visible. Much later, in the nineteenth century, the upper portions of the west range were entirely rebuilt.

The regular, rectangular-based planning of this court of the *zenana* at once distinguishes it from the *mardana* (despite the similar vocabulary of motifs) and links it rather with the palaces of Gwalior and Orchha [113]. Its external appearance – with its high, unpierced walls, and powerful buttress towers capped by cupolas – is also reminiscent of those palaces [115, 70]. The internal arrangement – the placing of domed chambers on a roof terrace – is particularly like the Orchha palaces [93].

This court of the *zenana*, where attributed at all, is attributed to Maharana Karan Singh (1620–28),[6] but the exclusive use of archaic motifs such as the temple columns suggests an earlier date; it is more likely to be contemporary with the oldest parts of the palace (already described) which employ a similar range of motifs, than with the parts in a more modern style and also attributed to Karan Singh. An earlier date (c. 1570) would make it contemporary with the Raj Mandir, the second of the sequence of palaces at Orchha. But whatever its date, the influence of Orchha is clear. It is therefore also clear that the architects of the first parts of the Udaipur palace, though in some measure concerned to make a reproduction of the lost capital of Chitor, were neither ignorant of nor unwilling to imitate the more innovatory designs of their neighbours.

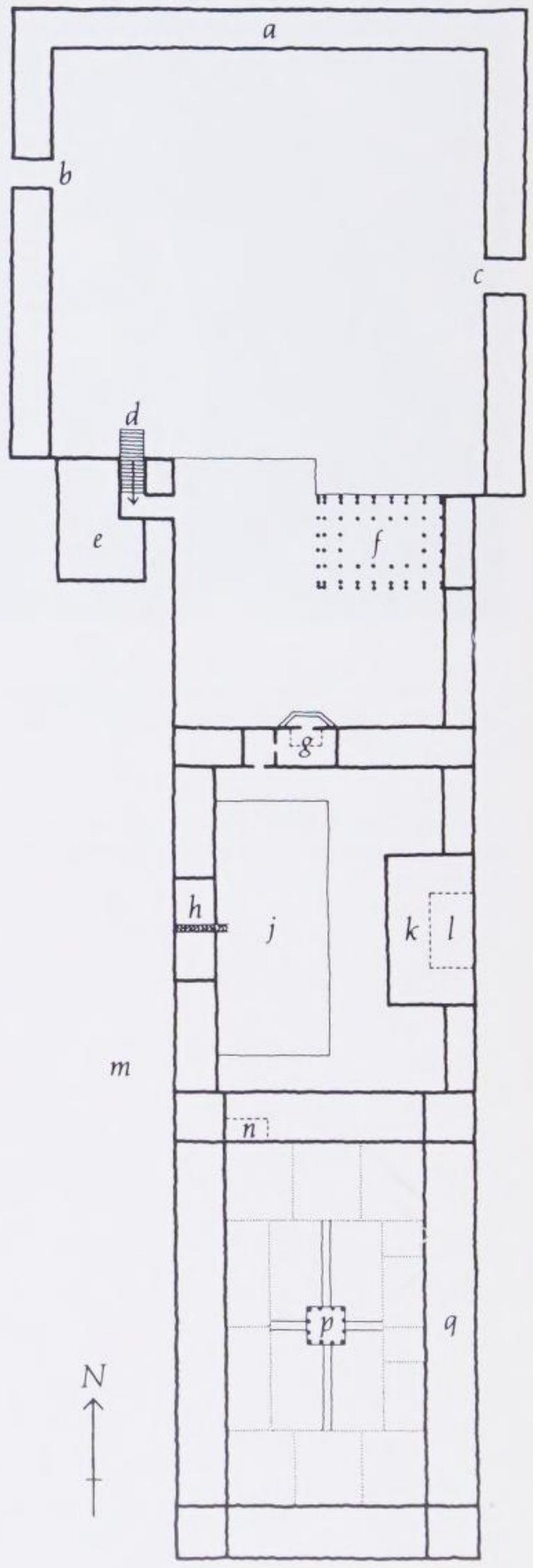
It is established above that the architects of Gwalior were similarly aware of, and occasionally – as in the Kirtti Mandir – willing to imitate, the Chitor variant of the Rajput style.[7] Of the two distinct modes of planning within the Rajput style – the one informal, the other symmetrical or at least regular – the first is represented before 1600 principally by the palaces of Chitor and Udaipur, in the west of the Rajput region; and the second by the palaces of Gwalior and Orchha, to the east. But between these two trends there was a mutual awareness which manifested itself alongside the local variations, and so tempered the geographical division in the style.

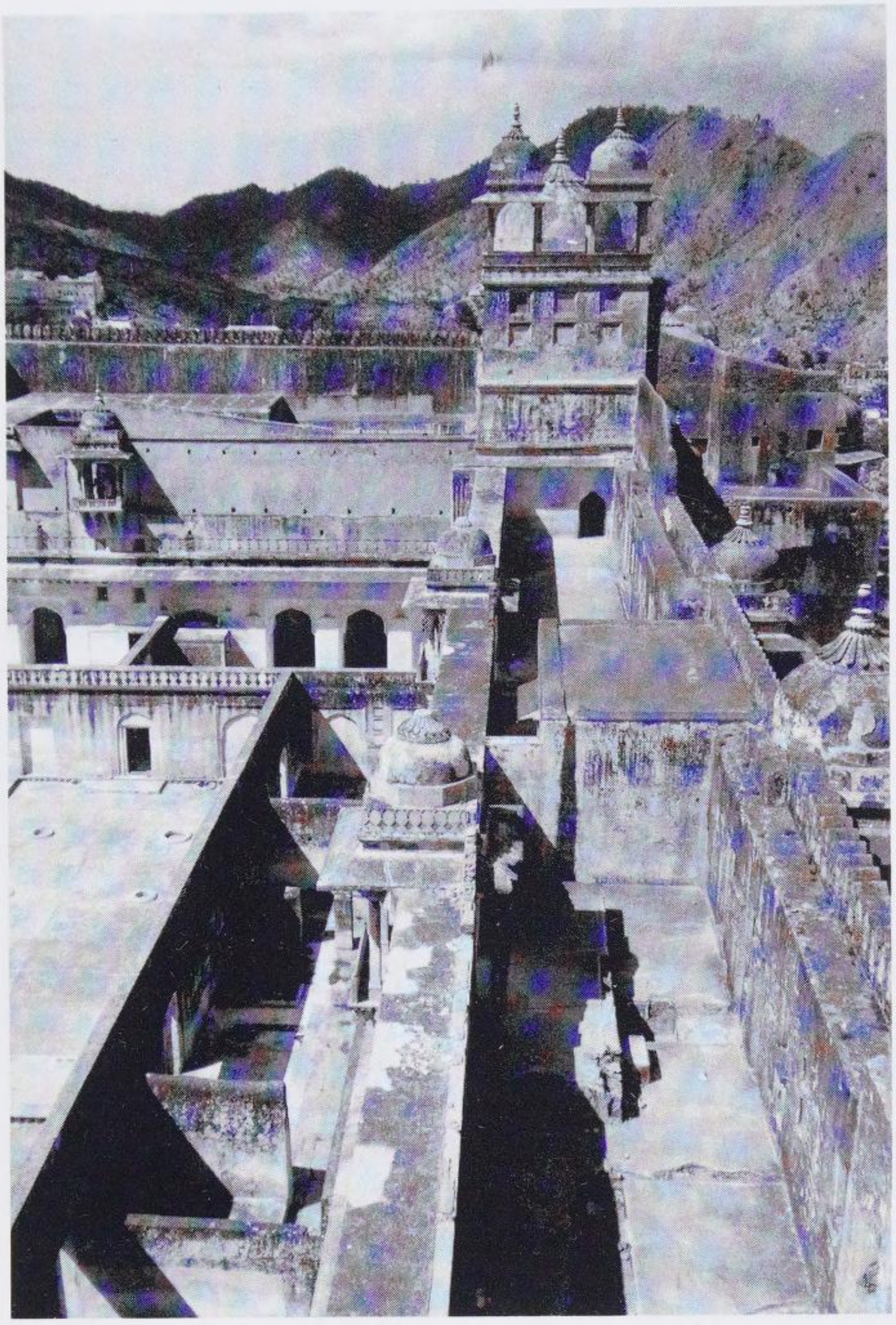
Amber

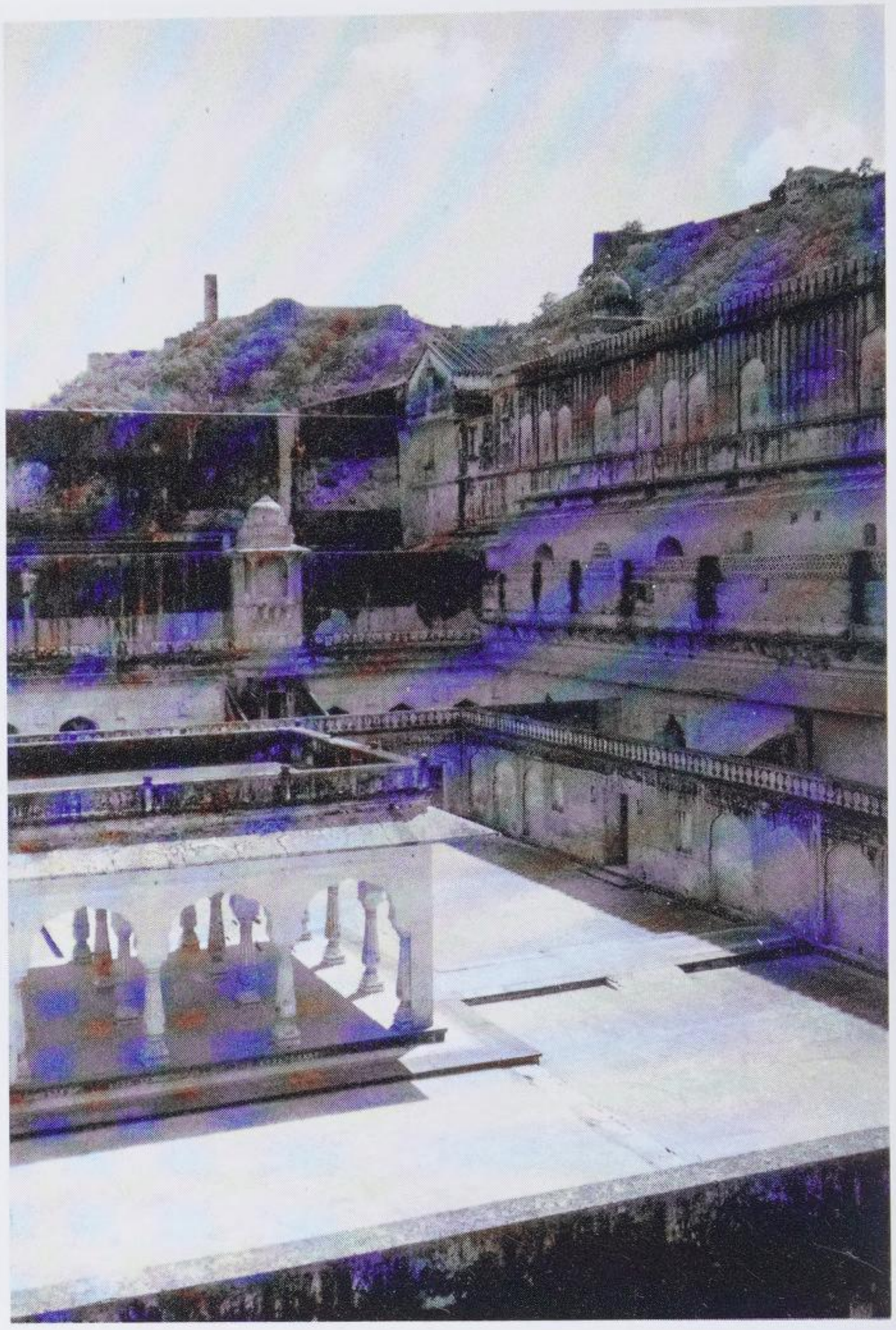
Belonging to the same tradition as the main court of the Udaipur *zenana* is the oldest surviving portion of the palace of Amber. Built by Raja Man Singh (1592–1615), it relates in a similar way to the Gwalior and Orchha palaces. It is built on a regular, rectangular plan [116]; even ranges of uniform design surround a large *chowk* [117]; and powerful towers emphasize the corners – all in accordance with the formula established at Orchha. On the exterior, its high, sheer, unpierced walls are articulated by heavy string-courses and punctuated by buttress towers capped by cupolas, between which small box-like balconies break the skyline [118]: many of these features are common to the exterior walls of the Udaipur *zenana* and the Orchha palaces, and the absence of glazed tiles is the only major distinction between the Amber walls and those of the Man Mandir at Gwalior [*iii*].

It is established in Chapter Five that this first court of the Amber palace originally stood alone as a complete, self-contained palace; and that, though it is often called the *zenana*, it was not then a *zenana*. The conversion, effected when later parts of the palace had been added, was not done tactfully. Originally, long, cantilevered

116. Amber Palace; a sketch plan (not to scale): *a* – ranges surrounding Jaleb Chowk (subdivided to accommodate the palace guard); *b* – Chand Pol; *c* – Suraj Pol (principal entrance); *d* – Singh Pol; *e* – temple of Sila Devi; *f* – Diwan-i-Am; *g* – Ganesh Pol; *h* – Sukh Niwas, with a marble channel running into *j* – formal garden; *k* – Sheesh Mahal (Jai Mandir) with *l* – Jess Mandir, above; *m* – servants' quarters added to the west side of the palace; *n* – pavilion; *p* – pavilion in the centre of the '*zenana*' mahal; *q* – ranges of the '*zenana*' mahal, divided into separate apartments







117. Amber Palace; the corner of the north and east ranges of the southern court (1592–1615)

119 (right). Amber Palace; the corner of the south and west ranges of the southern court

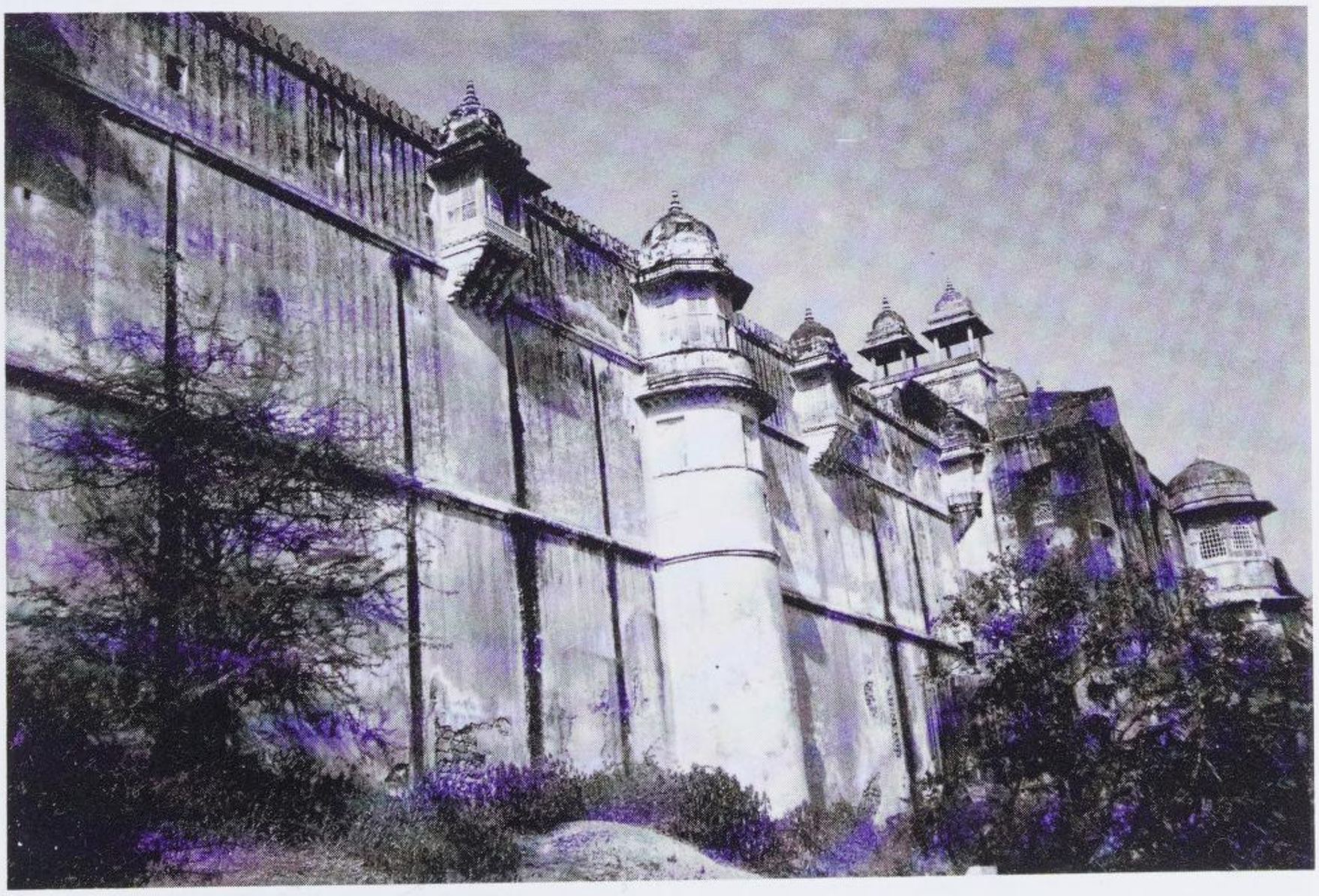
balconies ran along the court fronts of the ranges, like those in the Orchha palaces [97]; but the low parapets protecting these balconies have been clumsily raised to enclose the balconies as corridors, and so conceal anyone moving along them [119]. Once open colonnades have been blocked up, and screening walls have been erected in front of doorways. These measures accord with the conditions of *purdah*, but they destroy much of the depth and variety of the main elevations. Though the court never had the same degree of formal variety as the Orchha palaces, in its original form its unity, size and spaciousness must have been impressive.

The *baradari*, or twelve-arched, open columned hall, in the centre of the *chowk* is, with its cusped arches on balustered and fluted columns, more modern in style than the rest of the court, and is probably coeval with the conversion; that is to say, the *chowk* was originally empty, like those of the Orchha palaces, and the hall is a feature of the *zenana*. The Udaipur *zenana* has a comparable hall, though larger and grander, which stands at the south end of Laxmi Chowk; and the oldest part of the *zenana* of the Jodhpur fort includes a similar open columned hall. The function of these halls can only be conjectured. Given the social conditions prevalent in India in this period, it is unlikely, despite their similarity in form to the *sabhas* in the *mardanas*, that they were women's *sabhas* or council halls. It is more plausible that they were where the raja and other men admitted to the *zenana* gave audience, of one kind or another, to the women.

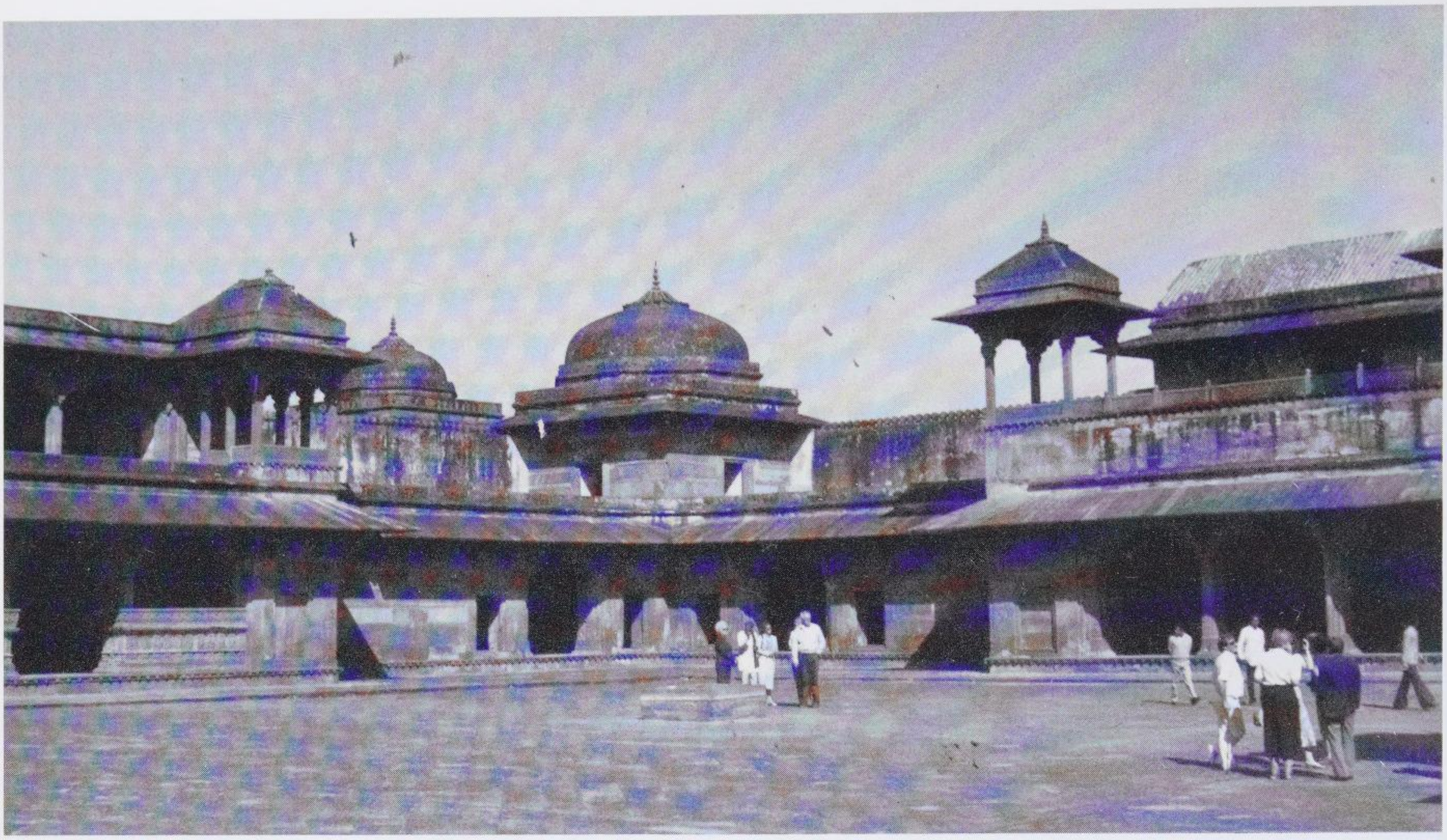
The overall unity of the court is impaired not only by alterations but also by some inconsistencies in the original design. Chief among these is the use of pitched roofs over the two more southerly corner towers [119], and of domes over the two more northerly ones [117]. Both the domes and the pitched roofs are well integrated structurally and so appear to be original.[8] This is remarkable because the pitched roof is an unusual feature in Rajput architecture. However, it seems that it was briefly in vogue at this time. Some of the *havelis* in the town below the Amber palace have similar pitched roofs: small, and covering usually a single chamber rather than the entire building. And a contemporary miniature painting now in the National Museum – a painting of Mughal workmanship but illustrating a Hindu religious theme – depicts an idealized Rajput palace which includes a tower with a pitched and gabled roof of just this form.[9]

An immediate and obvious precedent for the Amber roofs are the pitched roofs in the *zenana* or so-called palace of Jodh Bai, in the Mughal capital, Fatehpur Sikri (1570s) [120]. They were even decorated in the same manner: on some of the Amber roofs (particularly some of those in the town) there survive patches of bright blue tile-work similar to the tiles on the Fatehpur Sikri roofs. However, the stylistic link between the two palaces is not a simple matter of Mughal influence, since the pitched roof is not a characteristically Mughal form: Jodh Bai's palace is unusual among Mughal buildings in having them.

Indeed it is not only its roof-line that makes Jodh Bai's palace an atypical member of the Mughal school. The influence of the Hindu tradition is very evident in the forms and decorative motifs employed throughout Fatehpur Sikri, though there is little use of Hindu planning principles: isolated buildings stand on open, level, paved ground, in accordance with typical Mughal practice [35]. But Jodh Bai's palace depends more thoroughly on Hindu contribution than does the rest of the palace, for it is Hindu in its planning as well as in its specific forms. With its large open *chowk*, uniform ranges, high-level terraces, and cupola-crowned corner towers, it is indeed unmistakeably another member of that sequence of palaces which embody what is defined above as the eastern Rajput tradition. It is contemporary with the Udaipur *zenana* and slightly older than the first court of Amber; and it stands in



118. Amber Palace; the east front of the southern court

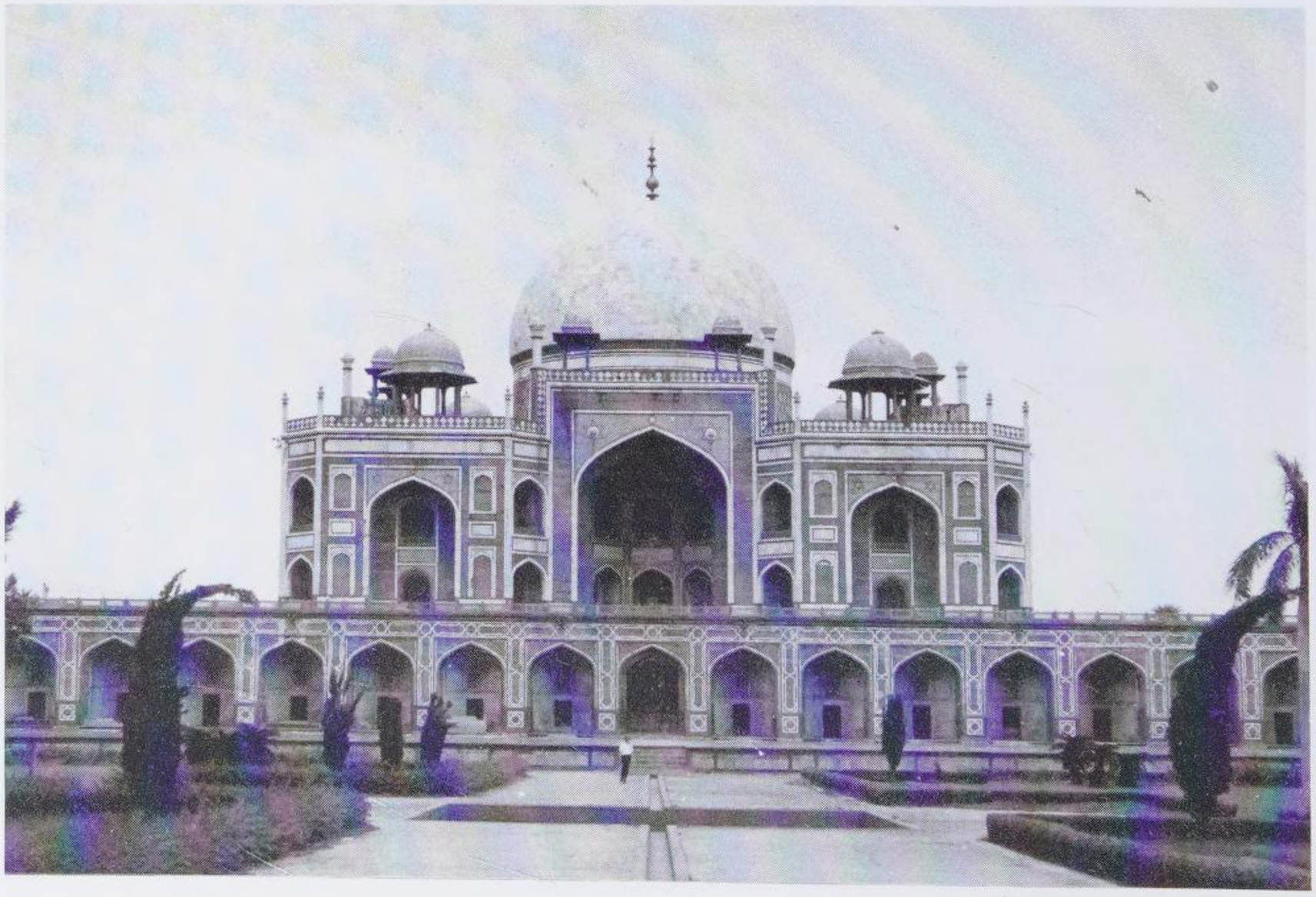


120. Fatehpur Sikri; the corner of the west and north ranges of Jodh Bai's palace (1570s)

the same relation as them to the palaces of Orchha [97].

Given the commonly received view of Rajput architecture, such a correspondence might lead to the conclusion that a Mughal building was of seminal importance in the development of a major theme of the Rajput style. A more empirical approach shows that such a conclusion would be based on a confusion of style with patronage. Though Mughal by patronage, Jodh Bai's palace has no place in the mainstream development of the Mughal style; it owes nothing to the principal Mughal monuments which precede it – the architecture of Humayun and early Akbar [121] –

121. Delhi; Humayun's tomb (1564–72)

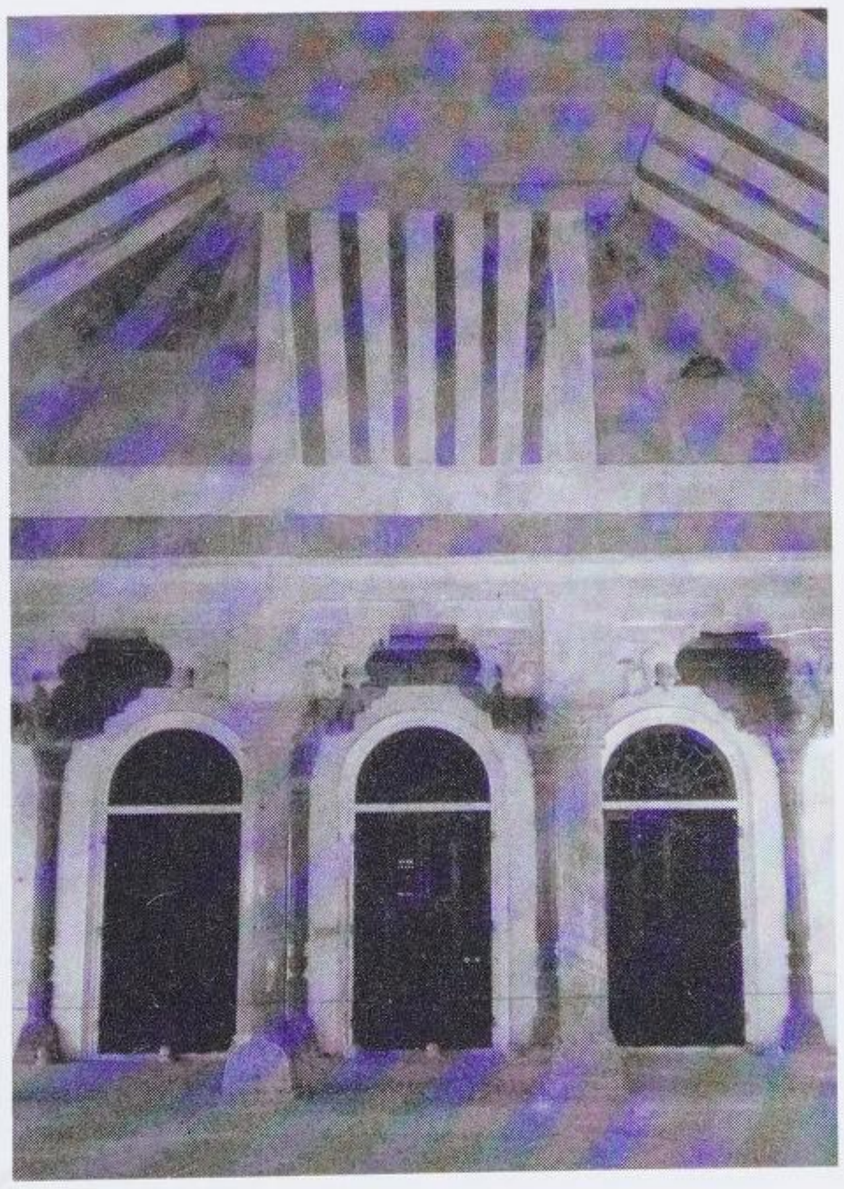


and offers no intimation of the principal Mughal monuments which follow it – the architecture of Jahangir and Shah Jahan [19]. The architectural ideas which it embodies are Rajput: it is shown above that the development of those ideas began in Gwalior about 1500 and was pursued most vigorously in Orchha from about 1530; and that that development was based on ancient Hindu doctrine and owed nothing to Mughal – or any Indo-Islamic – architecture. Jodh Bai's palace certainly contributed to the development of a theme within the Rajput style; but it is not an outside influence on that theme: it is a part of it.

But if it could not be said to illustrate a Mughal influence, neither, properly speaking, does it afford an example of Rajput influence on a Mughal building. It must be remembered that most Mughal buildings were built by Hindu craftsmen, working under varying degrees of supervision from Muslim architects. In the case of Jodh Bai's palace, it is not that the craftsmen have been permitted to introduce Hindu motifs into the design, as they have elsewhere in Fatehpur Sikri – a process for which the term 'influence' might be appropriate; instead, they have been permitted to build entirely in a Rajput manner, and the term 'influence' would be misleading. There has been no imitation of other architects' ideas; Jodh Bai's palace is stylistically a Rajput building, not an imitation of one.

The design of Jodh Bai's palace is clear evidence of the liberalism of Akbar's policy towards the Hindu craftsmen whom he employed. Granted the opportunity, the architects adopted the most radical ideas then available, and produced a building which, though less satisfactory than Bir Singh Deo's palaces that were to follow, nevertheless, because of its great spatial variety, is a more successful fulfilment of those ideas than the *zenana* of Udaipur or the first court of the Amber palace.

The theory of Mughal stylistic supremacy reappears in relation to a building in one of the next two courts of the Amber palace to be built. Raja Man Singh was succeeded by two inconsequential rajas, Bhao Singh and Maha Singh, and then by Mirza Raja Jai Singh I (1623–67/8).[10] The Mirza Raja added two courtyards to the north of and in line with the existing court, thus considerably increasing the palace's size but destroying the unity and symmetry of the overall plan [116, *vii*]. The two new courtyards together constitute a *mardana*; the more southerly one, contiguous with the original court, being the raja's private palace, and the more northerly one being a public court. The two functions of a *mardana* were thus provided for, and the way was paved for the conversion of the original court into a *zenana*.



122 (left). Amber Palace; capitals and corbels in the Diwan-i-Am (1623–7)

123. Amber Palace; the interior of the Diwan-i-Am

The public court contains the Diwan-i-Am, the finest hypostyle hall of the Rajput school [3]. The outer columns, in coupled pairs, are of red sandstone and the inner ones of cream marble. Neither of these stones is local to the Amber district and the use of imported stone is one feature of the lavishness of the building (most of the palace is built of local stone, rendered and painted cream). All of the columns are of the usual temple-derived design, though the corbels are especially richly carved and incorporate small figures of elephants [122]. The shafts of the columns, unlike those of temple columns, are of uniform section throughout their height; in this respect they imitate the columns of the *sabha* of Rana Kumbha's palace at Chitor [50], although they are of a more complicated form, having twelve sides rather than eight.

The ceiling of the hall is of a distinctive construction; the four curved sides rise towards a central, flat rectangle, producing an effect like a canopy [123]. Though this form of ceiling is found quite commonly in Rajput and Mughal buildings, this example is particularly large and impressive; and the use of different coloured stones in a striped pattern enhances the effect.

The Diwan-i-Am's conception – an open, hypostyle hall of predominantly trabeate construction, using temple-style columns – is derived from the *sabhas* of Chitor and Udaipur, but it is both grander and more lavishly detailed than those antecedents. It is this building which Rousselet describes as having aroused the envy of the Emperor Jahangir and having thus caused Jai Singh some anxiety.[11] If Rousselet's story is true – and if he has correctly identified the principal protagonists – then it enables us to date the building fairly precisely: it must have been built between Jai Singh's accession in 1623[12] and Jahangir's death in 1627.

Percy Brown describes this Diwan-i-Am as an improvisation on the Mughal style, and conjectures that it was built 'by masons trained in the Akbari style'.[13] This assessment has been echoed by others,[14] but it is problematical. Akbari architecture is distinguished from all other phases of the Mughal school by its greater incorporation of Hindu, including Rajput, forms and motifs [91] – and indeed Brown himself shows this.[15] He is therefore implying that the Hindu masons of the Diwan-i-Am employed Hindu forms because they had been taught to do so by 'Mughul overseers'.[16]

In a more general context, Hermann Goetz makes a comparable assessment: he asserts that all of the earlier Rajput palaces, including the Amber palace, are 'more or less copies' of the Muslim architecture of Mandu; and he accounts for the presence of Hindu features in these early Rajput buildings by pointing out that such features appear also in the Muslim supposed models.[17] Goetz is suggesting that Hindu architects used Hindu forms not because they, the architects, were Hindu, but because they wished to imitate Muslim architecture and such Muslim architecture incidentally incorporates Hindu forms. Brown does not explicitly state, but he implies no less clearly for that, the same thing.

Insistence on the primacy of Indo-Islamic over Hindu styles leads perhaps inevitably to arguments such as this. The truth must be simpler. The architects of the Amber Diwan-i-Am did not need to rely on Muslim imitations of the Hindu tradition; they could rely on that tradition directly, especially since it was, after all, their own. The Amber Diwan-i-Am was a part of a continuing Hindu development. A Muslim patron might contribute to that development – by commissioning a Hindu-style building – but such contributions performed supporting rather than leading roles.

It is not that Mughal architecture was never a formative element; indeed a genuine Mughal influence is evident in an important detail of the Diwan-i-Am: the design of the column bases [123]. These are copied not from any Akbari building but seemingly from the pavilions of the Shalimar Bagh in Kashmir, built by Jahangir. Here

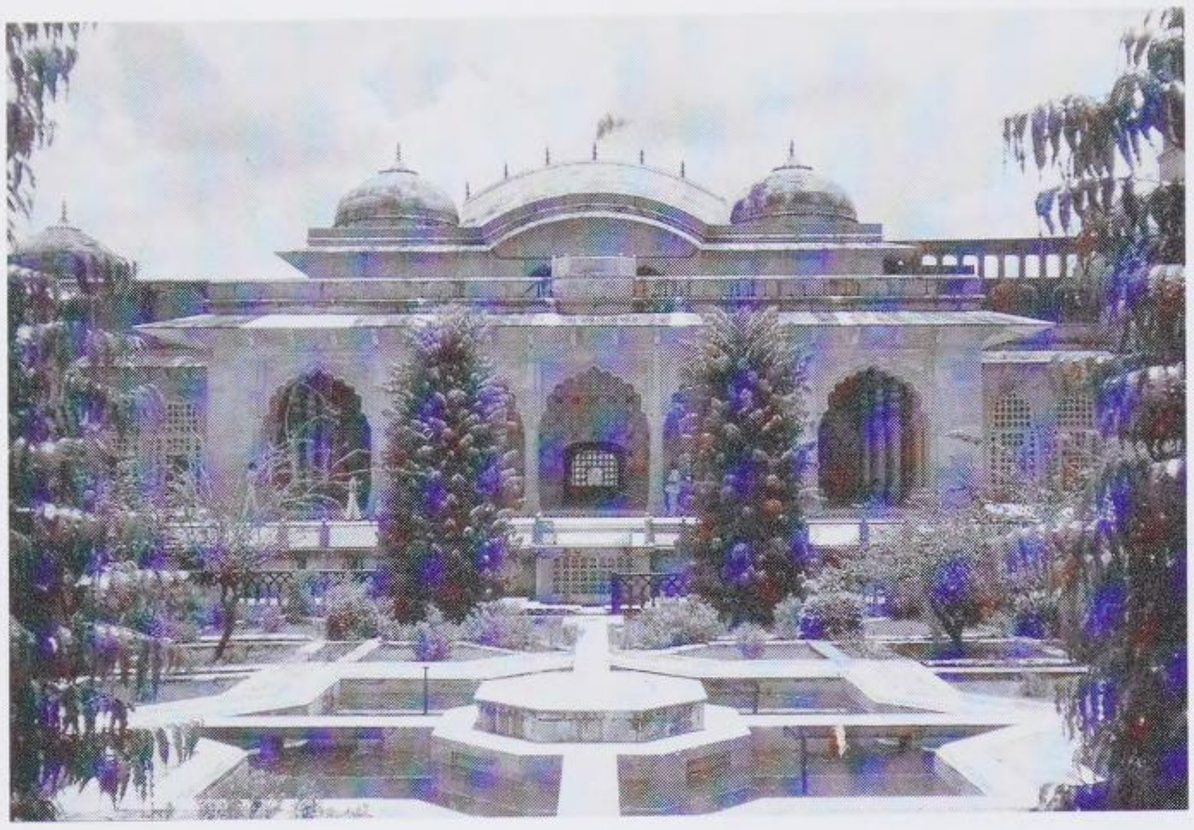
they combine oddly with the Hindu corbels but they provide a gentler transition between shaft and ground than do the conventional Hindu column bases, and so may be regarded as a refinement. And this is indicative of a general Rajput attitude towards Mughal architecture in the earlier seventeenth century: a willingness to incorporate Mughal innovations where they improve details without upsetting the predominantly conservative scheme.

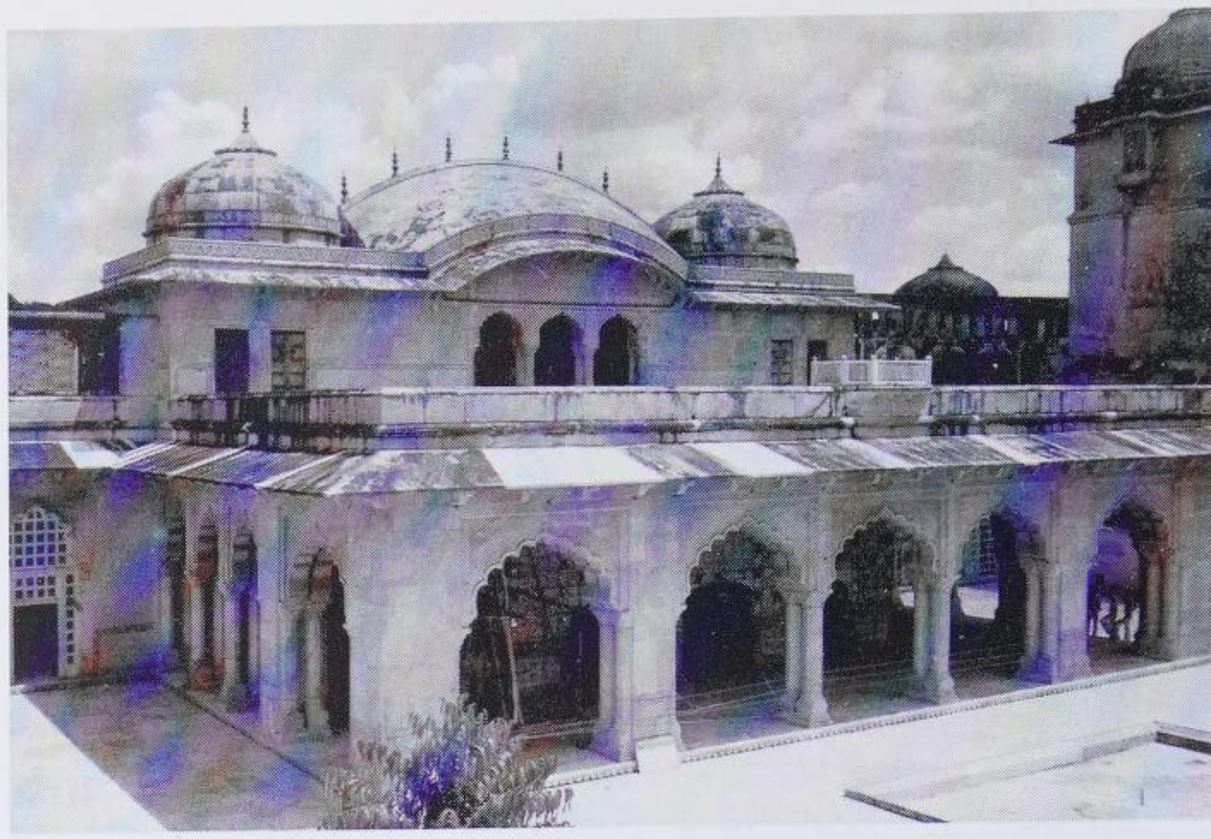
A much more extensive Mughal influence is apparent, however, in the other court by Jai Singh I, the private court of the *mardana*. Because of its position between the earliest court and the Diwan-i-Am Chowk [116], the boundary walls of this central court must have been built before or when the Diwan-i-Am Chowk was built. But the major buildings in it are evidently of a slightly later date than the Diwan-i-Am, since stylistically they take account of the additions made by Shah Jahan to the palace in the Red Fort of Agra.

Open pavilions flank a small formal garden [124]. The western pavilion, the Sukh Niwas, is linked to the garden by a watercourse; the eastern pavilion, built entirely of a creamy white marble, is separated from the garden by a broad, paved terrace. All of this suggests a conscious imitation of Shah Jahan's Anguri Bagh and Khas Mahal [19]. The eastern pavilion is in two storeys, with the Jai Mandir below and the Jess Mandir above; both are *sheesh mahals*, and although glass mosaic is a common Rajput technique the particular patterns used here – especially the web of tiny arch-shaped indents – follow the Shah Jahani adaptation of the technique [16].

Here, certainly, is a Rajput court which appears to be a faithful imitation of the

vi. Datia; the Govind Mandir (c. 1620), from the east





124. Amber Palace; the Jess Mandir and the Jai Mandir (1635–40)

125 (right). Amber Palace; the Jess Mandir and the Jai Mandir, seen from the Sohag Mandir

architecture of the imperial overlords. However, even if this Amber court is one of the most exquisite, it is not one of the most typical of Rajput courts; and it is atypical precisely because it closely imitates a Mughal model. Furthermore, many of the conspicuous details which the Amber and Agra courts have in common – notably the cusped arches and the *bangaldar* roofs – indicate not a Mughal influence but the common ancestry of the two styles; the Amber court is dependent on the Anguri Bagh primarily for its planning and arrangement. And although the planning of the Amber court taken individually is based on a Mughal model, it is nevertheless incorporated into a typically Rajput scheme: the palace remains a single, continuous mass of building, contiguous with its own fortifications [*viii*].

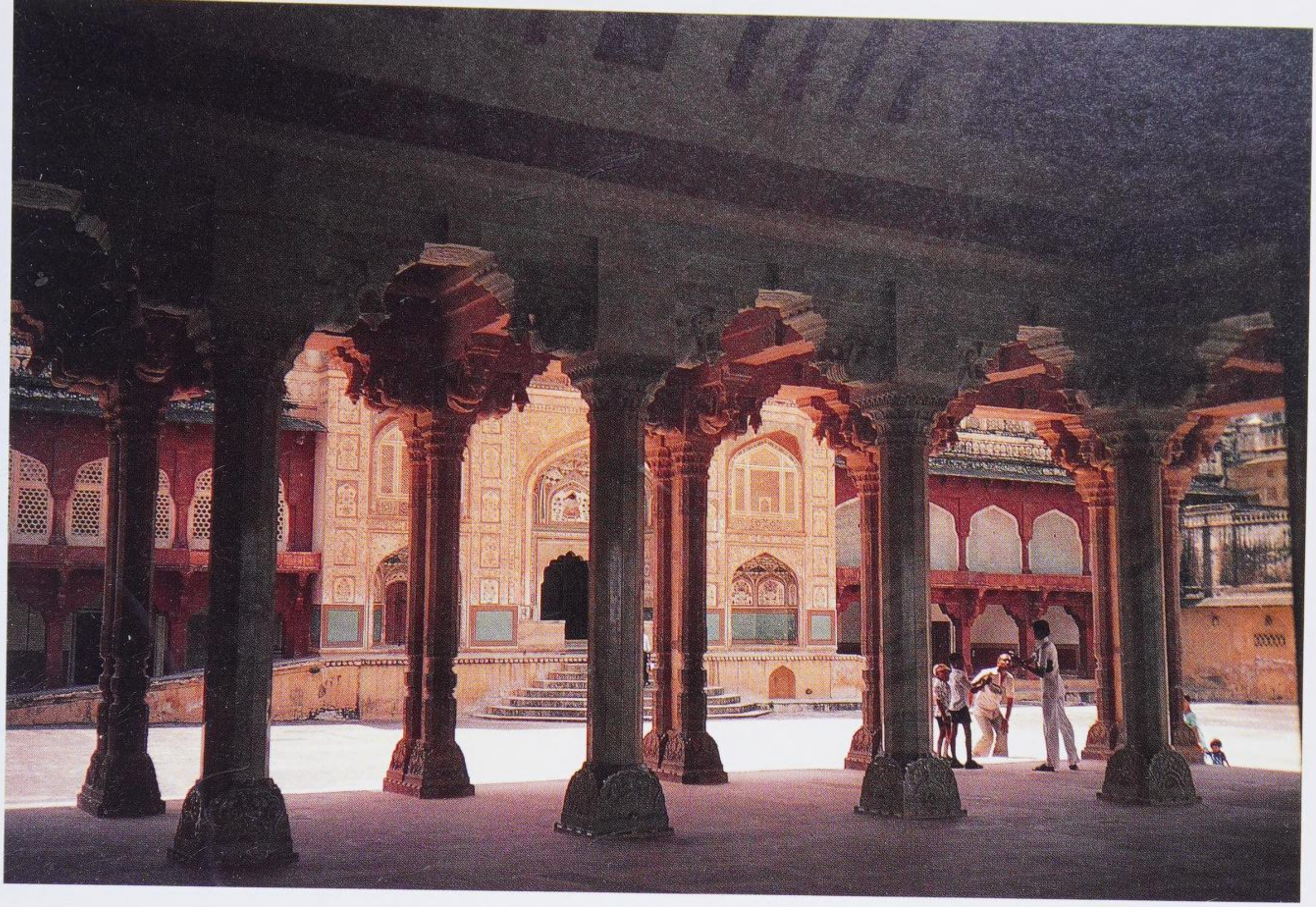
There are other aspects of the court which are stylistically Rajput and which temper the Mughal influence. Most obvious is the treatment of space. The Jess Mandir stands on a terrace formed by the roof of the Jai Mandir, following a well-established Rajput practice. All around the court, higher terraces overlook lower ones and high-level walkways link the pavilions; and the better perspectives are obtained from these vantage points [125]. Shah Jahani pavilions, though sometimes tall, are almost invariably of a single storey, and the paths which connect them are on the ground, encouraging level rather than angled views.

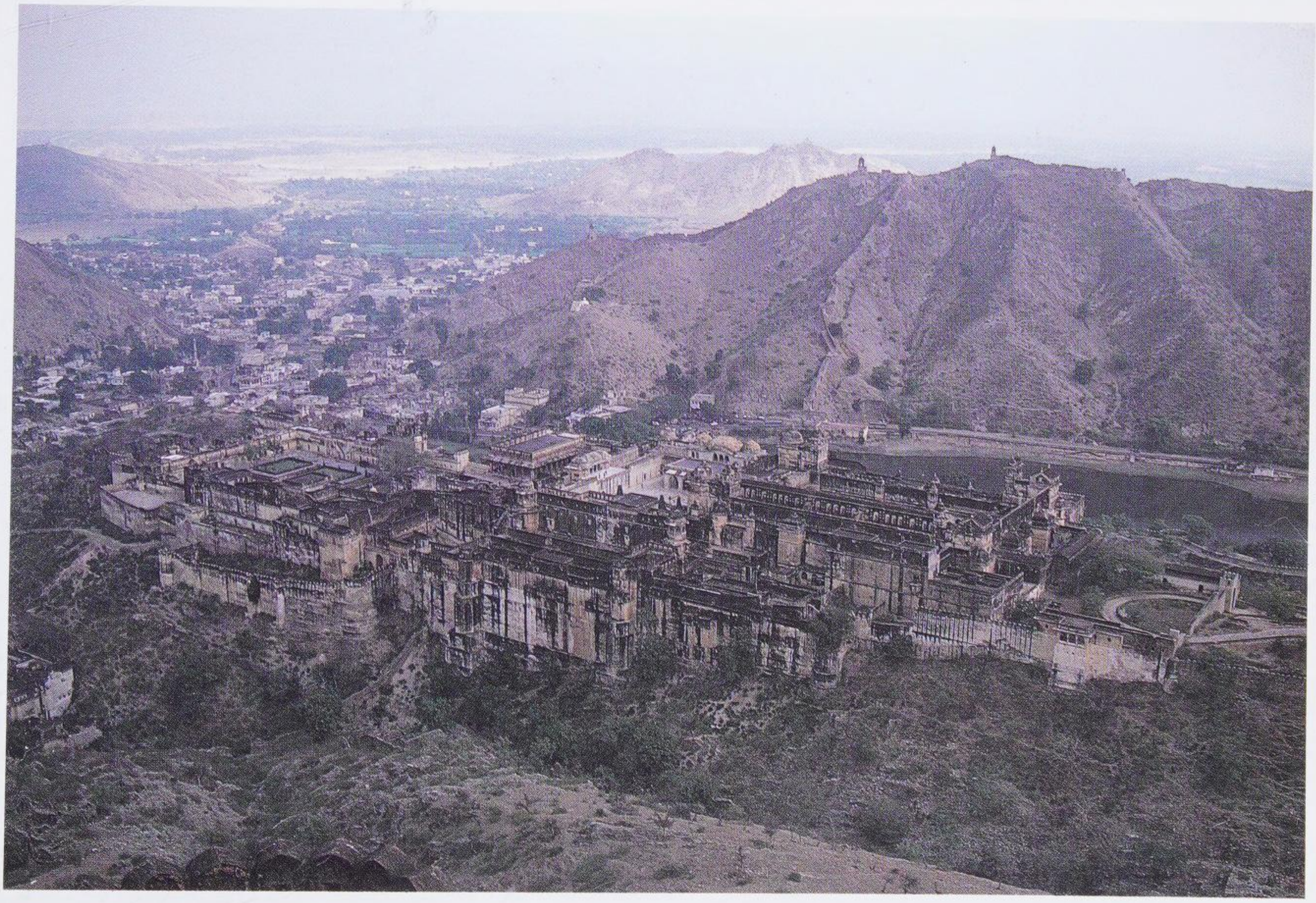
The Jess Mandir is placed at the edge of the palace so that its outer wall is flush with the fortification wall. This situation makes the pavilion breezy and cool, and affords a striking view of the lake to the east of the palace, the Tal Katora, with its island garden. It also ensures that the pavilion's openings and domes provide a decorative fringe on the top of the grim fort walls when seen from outside [41]. It is true that Shah Jahan's pavilions relate to the Agra fort wall in the same way, but this was a Rajput device before the Mughals adopted it. The balconies of the Kanwar Pade ka Mahal at Chitor similarly overlook the ramparts, and the domes and balconies of the Man Mandir decorate the wall of Gwalior fort [11]. Delicate pavilions and balconies perched high over severe walls are typical of the romantic spirit of Rajput architecture, and very common: some *garh* palaces, such as that of Bundi, appear from the outside to be composed of nothing else [196]. In Mughal architecture such a composition was scarce until adopted in Shah Jahani buildings, and that usage is not the source of the Rajput inspiration, even though it predates some Rajput instances of it, including this one at Amber.

Between the two courts added by Jai Singh I is the Ganesh Pol, which serves as the entrance from the public to the private courts of the palace [116]. The access which it provides, however, is not direct: the gate consists of two adjacent halls and the route through them turns two right-angled corners. This is primarily a defensive measure, intended to confuse and so impede an invading force. The same

vii (facing above). Amber Palace; the Diwan-i-Am and the Ganesh Pol

viii (facing below). Amber Palace (c. 1592–c. 1725), seen from Jaigarh



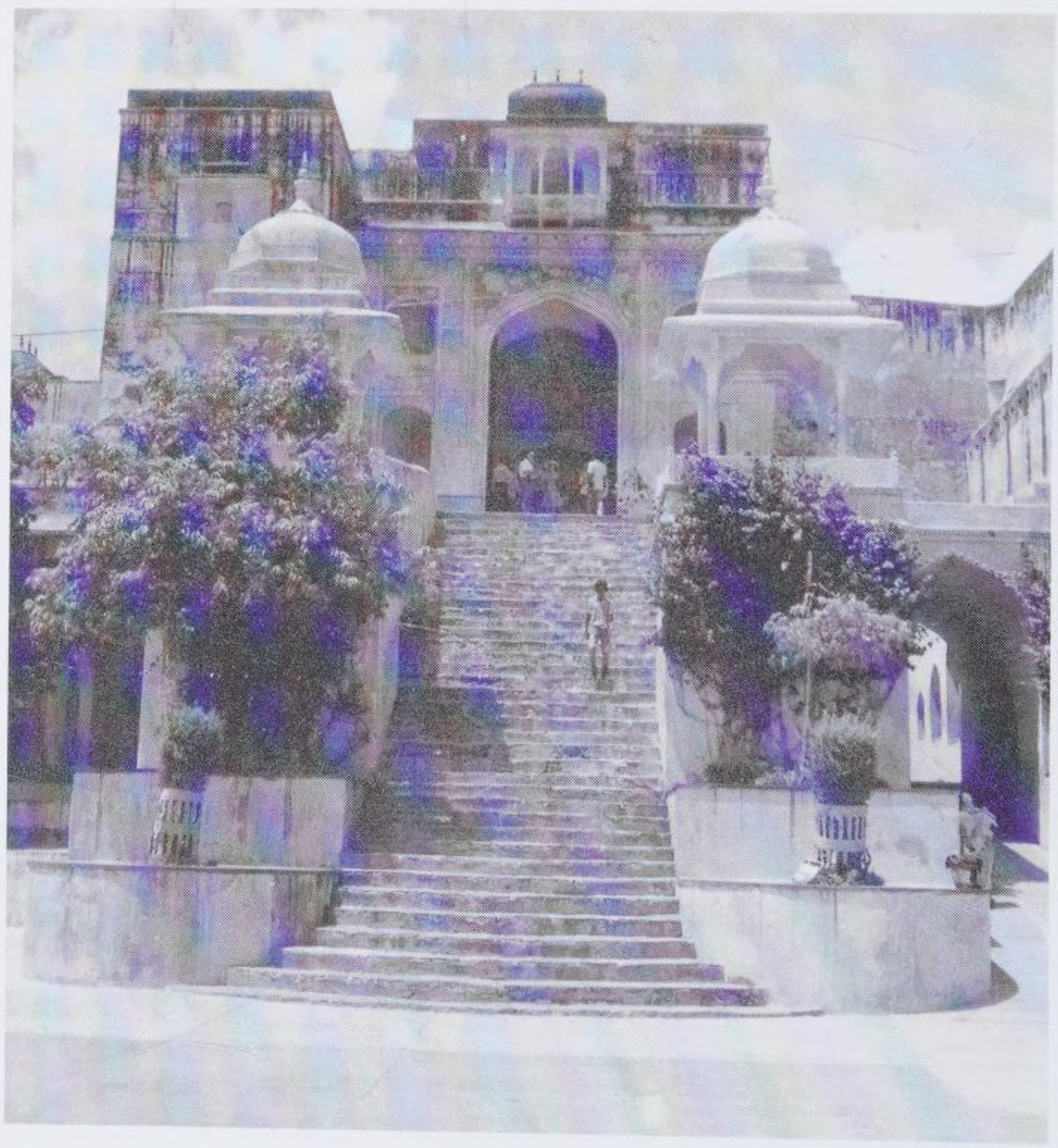


device is found in the Singh Pol, the impressive entrance to the Diwan-i-Am Chowk [126]. There, any invading force finds that it has to turn an unexpected corner to the left, or east, leaving its rear exposed to the guardroom situated at the west end of the gate hall. In the Ganesh Pol, the indirectness of access is also a stylistic measure. One expects such a grand gateway to provide direct access – as do most formal gateways in India – and this confounding of expectation, the upsetting of a formal scheme, illustrates an attitude to symmetry found in parts of many of the more irregular Rajput *garh* palaces: the rules of symmetry are invoked, only to be whimsically disobeyed.

The Ganesh Pol is in two storeys. On the outer, north side the two storeys form a united facade [127]. On the inner, south side the unity is abandoned: the south elevation of the lower chamber is a blank wall, and the upper chamber is seen to be a pavilion standing on a terrace formed by the roof of the lower one [128]. This pavilion, the Sohag Mandir, is open on the south side and its composition echoes the Jess Mandir. The difference between the two fronts of the Ganesh Pol involves a change in scale from the imposing grandeur of the outer front, suitable to the public court, to the divided and so smaller components of the inner front, more in keeping with the intimate atmosphere of the private court. This change of scale again sounds a note of whimsy, as the delicate pavilion and the grand gate are so different in mood and yet are the same building.

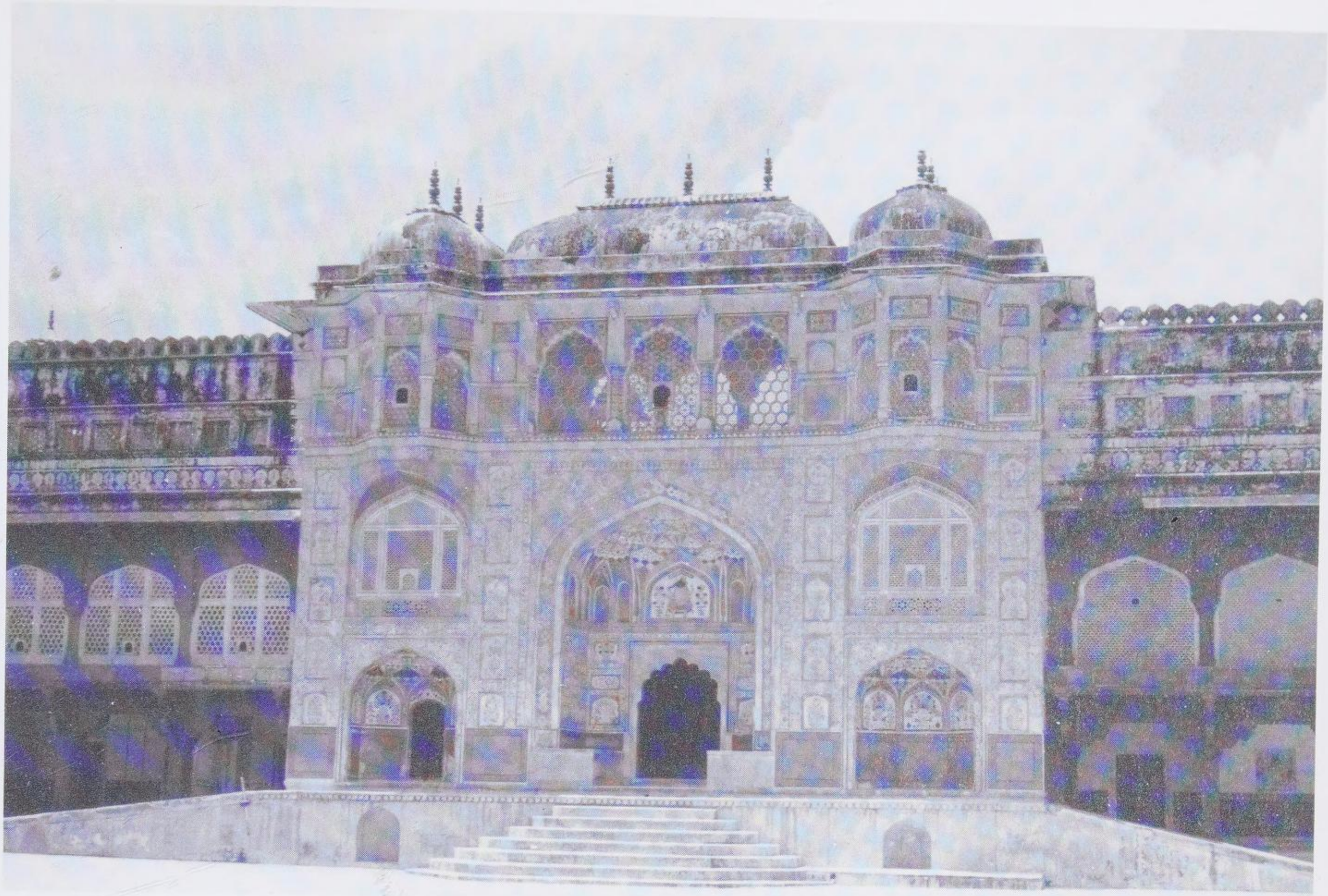
Authorities are divided on the date of the Ganesh Pol, some attributing it to Jai Singh I and others to his successor but two, Sawai Jai Singh II (1699–1744).[18] These attributions are never substantiated but there is, in fact, good circumstantial evidence in support of the later date. In the middle of his long reign, Sawai Jai Singh II abandoned Amber and founded a new state capital, Jaipur, five miles to the south. Some of the design drawings for the street plan and buildings of the new city have survived.[19] With the drawings are others which show parts, not of Jaipur, but of the Amber palace [129]. These other drawings are executed in

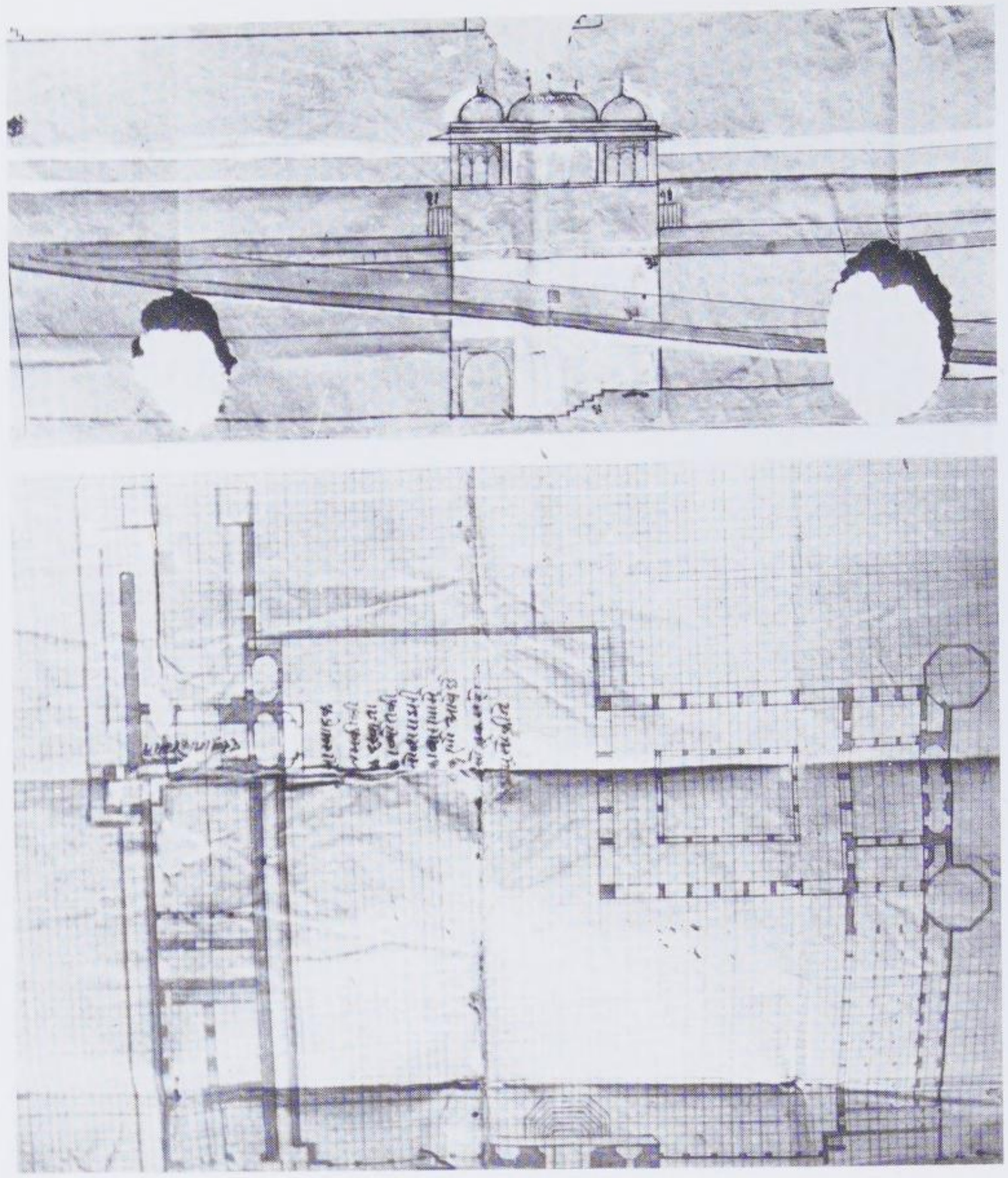
126. Amber Palace; the Singh Pol (c. 1625)



127 (facing above). Amber Palace; the Ganesh Pol, from without (1699–1725)

128 (facing below). Amber Palace; the Ganesh Pol, from within, with the Sohag Mandir



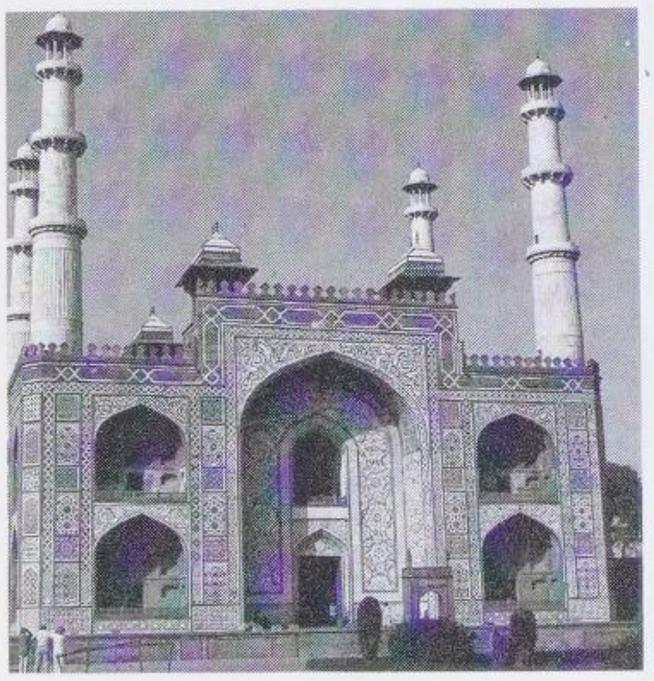


129. Original architect's drawings of the Amber palace. Above – section through the Ganesh Pol showing the ramp; below – plan of Diwan-i-Am Chowk showing the two late gates in context; the Singh Pol (top left) and the Ganesh Pol (bottom centre).

the same manner, on the same types of paper, and using the same inks as the drawings of Jaipur. From these similarities it is evident that the two sets are approximately contemporary; indeed the very survival of the Amber drawings urges this conclusion, since no others have survived from any earlier period. It is therefore reasonable to assume that the Amber drawings refer to the additions made by Sawai Jai Singh II to the Amber palace before he abandoned it.

Three of them are working drawings for the Ganesh Pol. Two are plans and show the design in different stages of development; the other, an elevation, shows the gate in its final form.[20] (There are very few elevation drawings in the whole collection; the purpose of this one was apparently to calculate the required gradient of the ramp contained within the Ganesh Pol.)

130. Sikandra, Agra: the gateway to Akbar's tomb (1605–13)



Stylistically too, the later date is probable. True, the composition of five pointed arches – with a central tall one flanked by smaller ones in tiers – is copied from such Mughal monuments as the gateway to Akbar's tomb at Sikandra, which are of an early date [130]. But the combination of the heaviness of the Ganesh Pol's square frame with the lightness of its details makes it similar to some of the gates of the Jaipur palace complex.

The other major addition to the Amber palace made by Sawai Jai Singh II is the fourth courtyard, Jaleb Chowk. This court added to the palace's fortifications [116], and its plain, uniformly dull ranges accommodated the palace guard – the *jalebdars* – after whom it is named. Recently converted into an untidy municipal garden, the *chowk* was originally empty, as another surviving design plan shows.[21] Empty, it would have served as a parade ground. The gates of the court are the

Suraj Pol to the east, at the head of the ascent road, and the Chand Pol to the west. They are surprisingly conservative in style: with a pointed arch in a four-square tower and trabeate galleries, they follow a traditional Rajput formula – seen also, for example, in the Suraj Pol of the Bikaner Palace (1593) [156] – suggesting that their construction was left to less innovative masons.

The four courts of the Amber palace together span a period of more than a century, and were compiled with no concern for overall symmetry. However, they are built along a ridge of the hill and so form a single line, and they present a tolerably unified east front [41]. On the west side any such unity is concealed by a disordered maze of buildings which adheres to the edge of the principal courts. These buildings, of different dates, are mostly self-contained apartments for servants of varying ranks; they include small but complete *havelis* tightly packed with simpler structures. The east front dominates the valley, and in conjunction with Jaigarh (the further fortress retreat above the palace) and Tal Katora (the lake below it) it makes a composition as informal and powerful as the hillside itself.

Udaipur after the hiatus

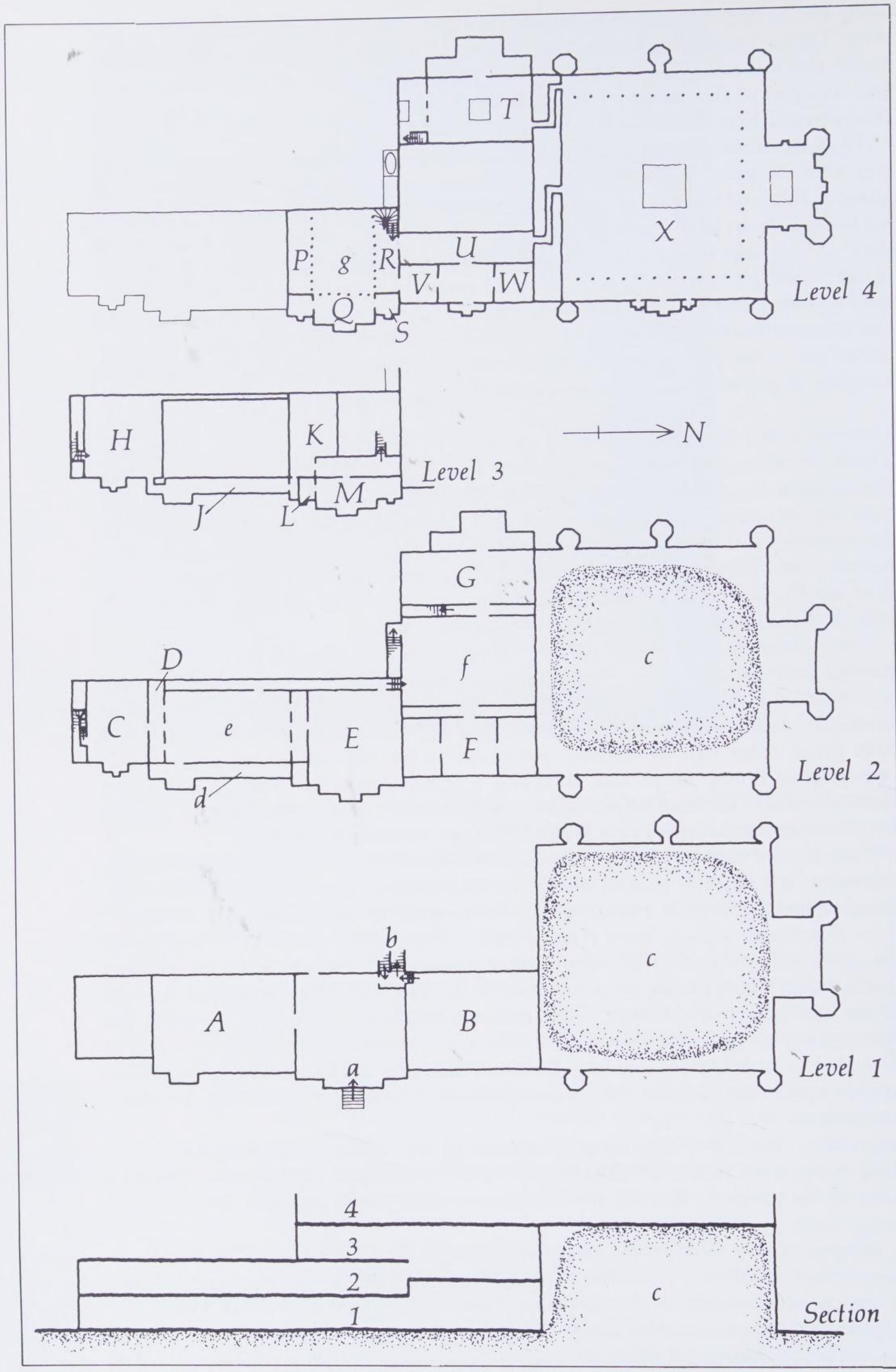
The Kachwahas of Amber were the most willing, among the Rajput clans, to enter the imperial Mughal service; the Sisodias of Udaipur were the most reluctant, considering the opportunities and protection to be gained insufficient compensation for the necessary loss of pride. Abul Fazl's list of the grandees of Akbar's court includes eighteen prominent Kachwahas, most of whom were members of the raja's immediate family, and only two Sisodias, of whom one was a Chondawat (a disfranchised branch of the family) and the other was a regular traitor.[22]

Their different attitudes towards the Mughal Emperor brought the two clans into conflict from an early date. Rana Pratap Singh of Udaipur (1572–97, the son and successor of Udai Singh), determined to avenge the loss of Chitor, continued to harass the imperial forces. In the most famous battle of Rajput history, Kanwar Man Singh (later Raja of Amber), commanding the imperial forces, attempted to coerce Rana Pratap Singh into accepting Mughal suzerainty. Though both sides claimed victory, the battle of Haldighat (1576) was in fact indecisive: the Rana escaped but Udaipur was occupied by a Mughal garrison for the next ten years.

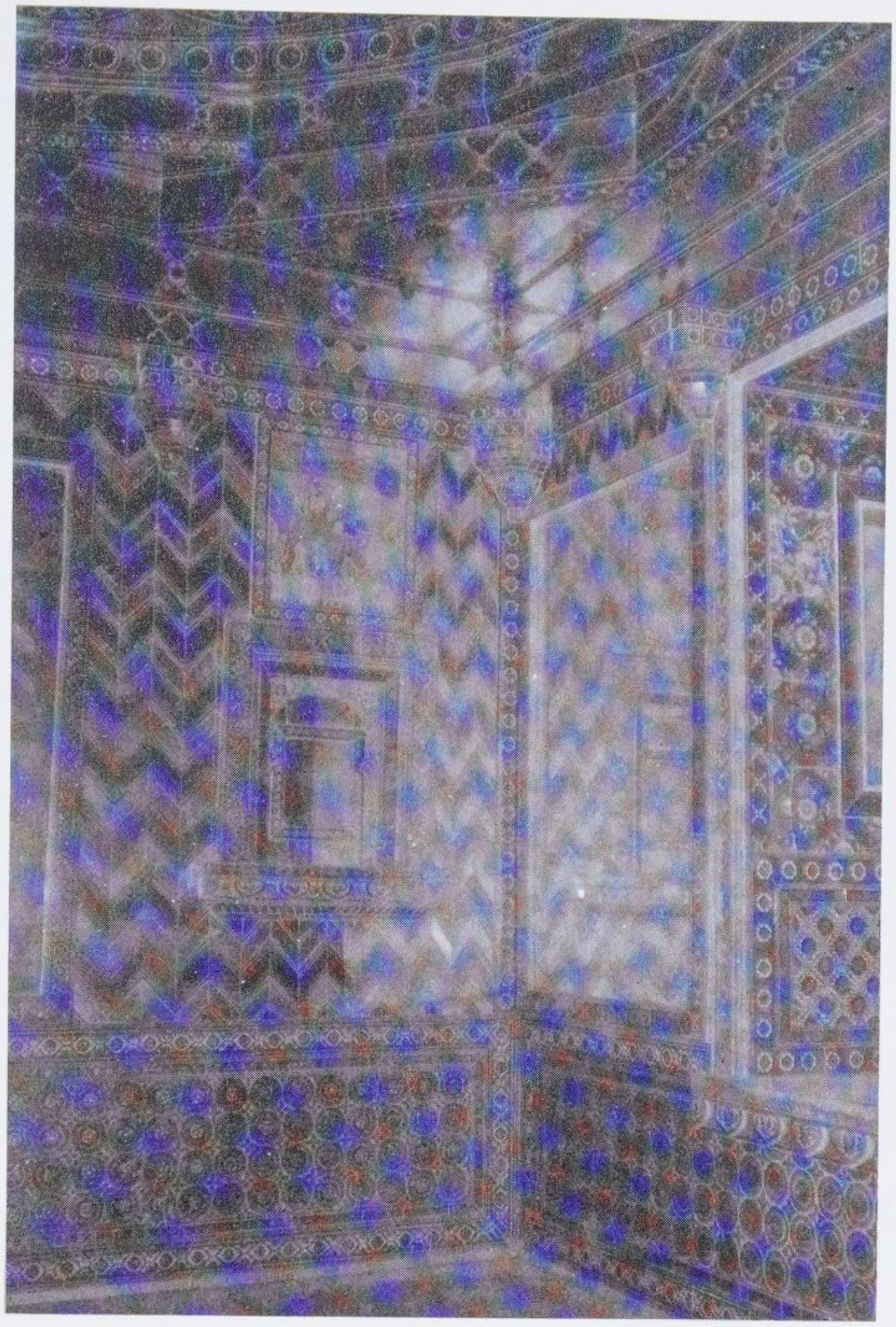
Since Rana Pratap's policy of resistance consumed all his energy and his financial resources, it is unlikely that he added anything to the palace of Udaipur even when he was able to occupy it. He had in fact bankrupted the state,[23] and so it is unlikely even that his successor, Rana Amar Singh I (1597–1620), was able to add to the palace in the first part of his reign. In 1614 renewed hostilities with the imperial forces led to outright defeat for Udaipur at the hands of Prince Khurram, the son of the new emperor, Jahangir. This meant submission to the Mughal yoke, but the terms were generous;[24] and peace brought a resumption of prosperity and so probably of building activity too. But the years between Pratap Singh's accession in 1572 and the capitulation in 1614 were probably barren as far as building operations are concerned.

It seems, therefore, that the earliest parts of the palace, discussed above, were built in the short period of Udai Singh's reign in Udaipur: 1567 to 1572. The first parts of the palace to be built after the barren period are stylistically slightly more progressive.

After 1614 two areas of the palace in particular were developed. The first is the area around the already established Rajya Angan Chowk [131]. The staircase access to the *chowk* was enclosed to form the Ganesh Deodhi; the Chandra Mahal was added above the temple, Nau Choki Dhuni Mata; and opposite, above the treasuries, was added the Dilkushal Mahal, a suite of four rooms including the Kanch ki Burj and the Chitram ki Burj.



131. Udaipur City Palace; sketch plans and a diagramatic section of the *mardana* (from 1567; not to scale): *A* – Sabha; *B* – Sileh Khana; *C* – Surya Chopar; *D* – Choti Chatur Shali; *E* – Manak Mahal; *F* – Daulat Khana; *G* – Nau Choki Dhuni Mata; *H* – Priyatam Niwas; *J* – Surya Prakash; *K* – Nila Mahal; *L* – Bhim Vilas; *M* – Moti Mahal; *P* – Madan Vilas; *Q* – Badi Chatur Shali (Chini ki Chitra Shali); *R* – Kishan Vilas; *S* – Shiv Vilas; *T* – Chandra Mahal; *U* – Dilkushal Mahal, including *V* – Chitram ki Burj and *W* – Kanch ki Burj; *X* – Amar Vilas (Badi Mahal); *a* – Mardana deodhi; *B* – Ganesh Deodhi; *c* – rock; *d* – veranda; *e* – Mor Chowk; *f* – Rajya Angan Chowk



132. Udaipur City Palace; the Kanch ki Burj (1614–28; glasswork c. 1870)

The Dilkushal Mahal consists of a rectangular chamber reached from a veranda in front and flanked by square chambers, each of which forms one storey of a tower; an arrangement which echoes a portion of Rana Kumbha's palace [53] and also of the Kanwar Pade ka Mahal at Chitor. If this suggests a continuing dependence, in these additions, on Chitor models, there are other features which are more progressive. The central chamber of the Dilkushal Mahal has a canopy ceiling of the same form as the Amber Diwan-i-Am, with which it is about contemporary. The cusped arches of the Chandra Mahal may also be considered progressive, for although the cusped arch is of ancient Indian ancestry it had fallen into disuse, and was at this date coming back into vogue.

Some of the Chandra Mahal's cusped arches show a peculiarly Mewari variant of the form [44]. The cusped arch, on a small scale, in both Rajput and Mughal architecture, is usually not a true arch but a pair of brackets which meet under the centre of a lintel. The Mewari variant makes this obvious by not allowing the brackets to meet, and leaving the lintel clearly visible between them. This makes possible a wider span without an increase in the height of the arch. It also results in a curious mixing of modern with traditional forms: the fashionable cusped arch is employed, but its traditional, trabeate construction is emphasized; the shape of the arch lies midway between a regular cusped arch and a traditional corbelled arch. The crucial quality of the cusped arch – that it is a modern form of seemingly

modern construction – is apparently wilfully reversed.

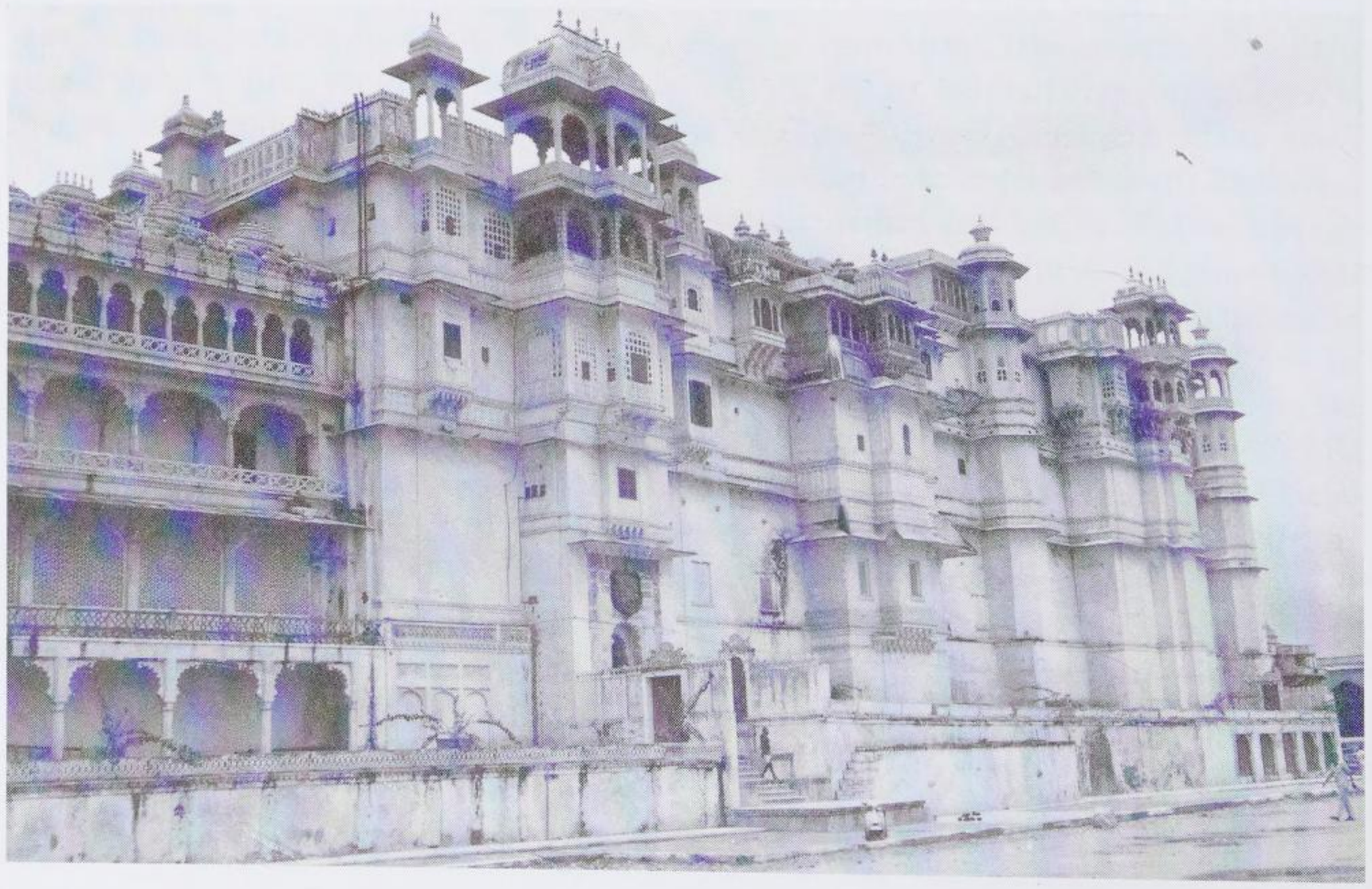
The Chandra Mahal is small, and thus typical of the intimate scale of the private apartments of Rajput *garh* palaces. Despite its small size, its form cannot be appreciated at once: its complicated and irregular plan, its open sides and the forest of columns within it, all prevent its being perceived from a single viewpoint. On the east side, the room overlooks Rajya Angan Chowk; the *chowk* would probably have been covered by a canopy, blurring the boundaries between interior and exterior space and so causing each to be less distinct. These uncertainties – of the limits of a space, and of its relation to an adjacent space – are further examples of elusion, the quality so characteristic of the Rajput builder's art.

As in the palaces of Amber and Jaipur later, the gate which separates the public from the private areas of the palace is dedicated to Ganesh, the god most suitably invoked in connection with major projects such as palace building. Most of the decoration of the Udaipur Ganesh Deodhi, including the hideous tiles, is recent. The decoration of the two tower rooms of the Dilkushal Mahal is likewise later than their construction: the murals in the Chitram ki Burj date from the late eighteenth century, and the glass-work in the Kanch ki Burj from the late nineteenth century [132].

The second area of the palace to be developed in the course of the seventeenth century is the area above the Sabha and the Mardana Deodhi [131]. A new court, Mor Chowk, was formed on the roof of the Sabha, with a veranda overlooking the eastern terrace [112]; the *chowk* is flanked by the Manak Mahal to the north and the Surya Chopar to the south. These two chambers are throne rooms, the Surya Chopar containing the Surya Gokhra from which the Rana greeted his divine ancestor, the sun, as it rose. Mor Chowk was used for *darbars*. This development therefore represents an extension of the ceremonial, public region of the palace, whereas the other development, just described, extended the residential, private region. The two regions, though connected, remained distinct.

That the blind arcade which separates Mor Chowk from its veranda was originally open is evident from the mixture of materials: the arcade, like its veranda, is of marble, but the arches are filled with plaster. This is one of a number of arcades and projecting balconies which form parts of the east front of the palace, and which have been blocked up or enclosed; the effect is to enhance the privacy of the royal apartments but also to reduce greatly the depth and variety of the front: originally the east front was substantially more open than it now appears [133]. In Mor Chowk

133. Udaipur City Palace; the east front (c. 1567–c. 1734)



134 (left) Udaipur City Palace; the east range of Mor Chowk – the court built mid-17th century, with late 19th-century peacock mosaics and, above them, the mid-19th-century glasswork of the Surya Prakash

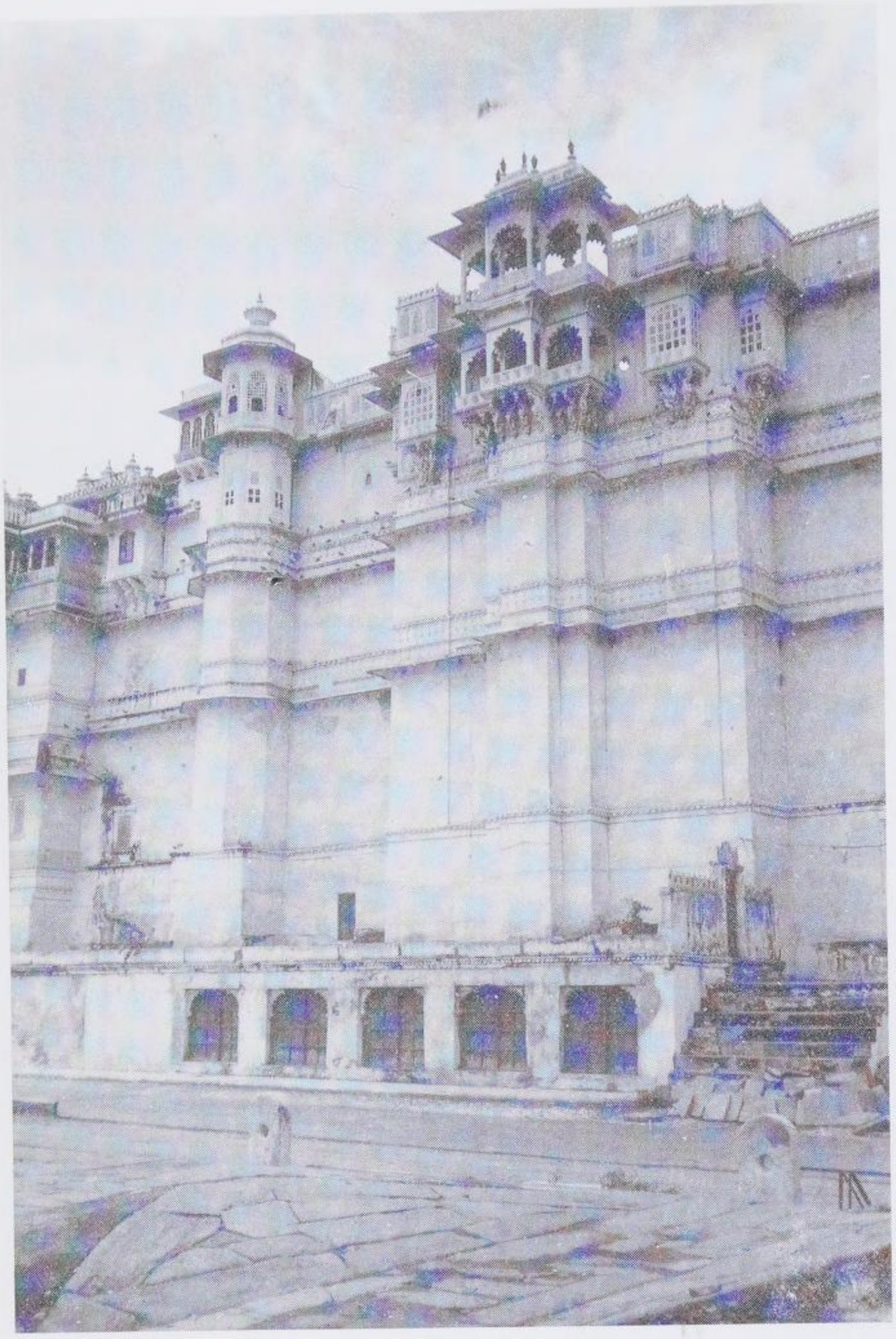
135. Udaipur City Palace; the north range of Mor Chowk, with – on the lower storey – the Manak Mahal (built mid-17th century, altered late 18th century) and – on the central storey – the Nila Mahal (early 18th century)

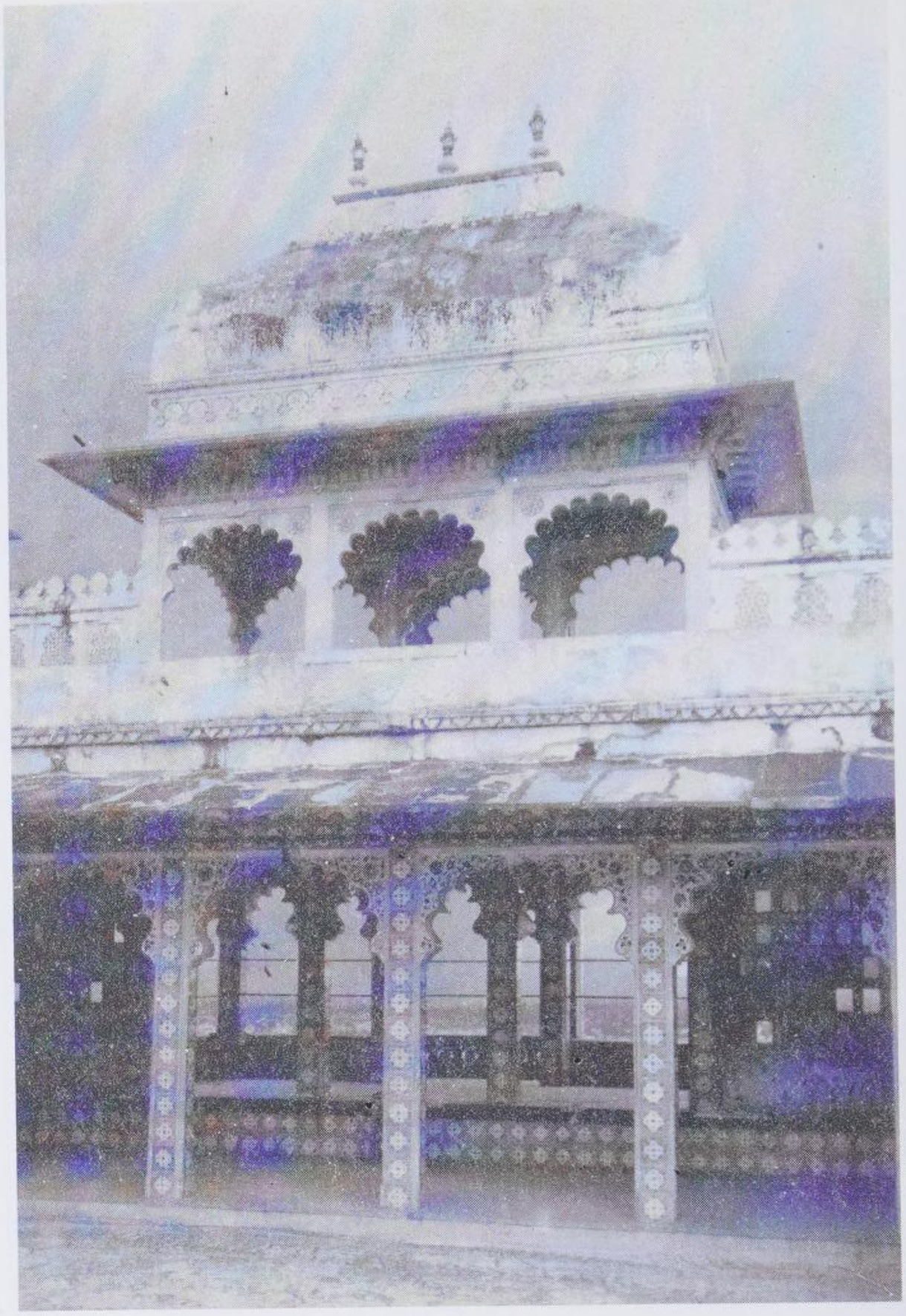
the filling in of the spaces provided surfaces for the celebrated and execrable glass mosaics representing peacocks, which were added in the late nineteenth century [134].

Other parts of this development have also been altered. The decoration of the Surya Chopar dates from the eighteenth century, and that of the Manak Mahal – a lavish scheme including some details of doubtful taste, such as a collection of European paperweights embedded in the walls – from the mid-nineteenth century.

More importantly, other parts of the essential fabric have been altered. Mor Chowk is separated from each of the flanking chambers by a small cloister.[25] From the inner sides of the colonnades of these cloisters, it is clear that their original design was thoroughly conservative, with temple columns and corbel capitals supporting lintels. On the outer or *chowk* sides, multi-cusped arches have been added between the columns, and the columns embedded in piers to obscure them, though their capitals are still exposed [135]. This alteration was undertaken long after the original construction: some miniature paintings of the 1760s show the cloisters still in their original form.[26] The point of the alteration was presumably to modernize the court in a period when the more conservative Rajput forms were thoroughly out of vogue; but the result is an unhappy juxtaposition of modern and traditional forms.

The largest single addition to the palace was made by Maharana Amar Singh II (1698–1710). The palace had hitherto been built against the southern edge of an abrupt rise in the ground; the Amar Vilas, or Badi Mahal, was built on top of





136. Udaipur City Palace; the outer east wall of the Badi Mahal (1698–1710)

137. Udaipur City Palace; the Badi Chatur Shali (1710–34)

this rise or small hill, and the sides of the hill were enclosed and hidden by walls [131]. This explains how there can be trees in the court, for though high, the court is built on solid ground. From the outside, the court's open, projecting balconies appear perched over high, severe walls [136], like the Jess Mandir of the Amber palace.

Inside, in the centre of the paved *chowk* is a square tank [*ix*]. Surrounding the *chowk* is a cloister, which is raised slightly above the level of the *chowk* to protect it from monsoon rain, and which incorporates a colonnade of cusped arches. Some of the arches are of the peculiarly Mewari, widened form. The whole scheme is executed in a mottled buff marble; and the cantilevered slab which supports the *chajja* is decorated with carved tassels and rosettes which create rich shadows. Less satisfactorily, the capitals, though each is interestingly unique in its decoration, are uniformly too small for the columns. On the south side, the cloister is incomplete as there is there no colonnade, but the continuation of the cloister's pavement and the holes carved in it where the columns should be, suggest that the scheme has been or was intended to be uniform on all sides.

ix (facing above). Udaipur City Palace; the Badi Mahal (1698–1710)

x (facing below). Udaipur City Palace; inlaid decoration in Badi Chatur Chowk (1710–34)

Immediately around the central tank are plots for the planting of trees, and outside these plots the pattern in the paving imitates their form. The trees assist the architecture both practically and aesthetically, since their foliage creates a canopy over this unusually large *chowk* and dapples the sunlight falling on the already mottled marble.

The symmetry of the plan is unexpectedly disrupted by balconies of different

forms projecting outwards from the cloister; and, at the north end, concealed behind the cloister until one is almost in it, is an open hall with a marble basin in its centre. The introduction of unexpected elements into a scheme which seems at first to be readily readable is another aspect of Rajput elusion.

Predictably, it is sometimes asserted that this court is an imitation of Mughal magnificence.[27] It is true that the balustered and fluted columns are Shah Jahani in type but this is the only derivative aspect. For the Badi Mahal is not magnificent, nor does it strive to be so; it has a delicate beauty and intimate atmosphere which are seldom found in Mughal architecture precisely because Mughal architecture so often does strive to be magnificent. The Badi Mahal is a royal playground, where the Maharanas amused themselves with their *sardars* and women: miniature paintings show them engaged in various activities from playing Holi to lying in the tank whilst smoking a hookah.[28]

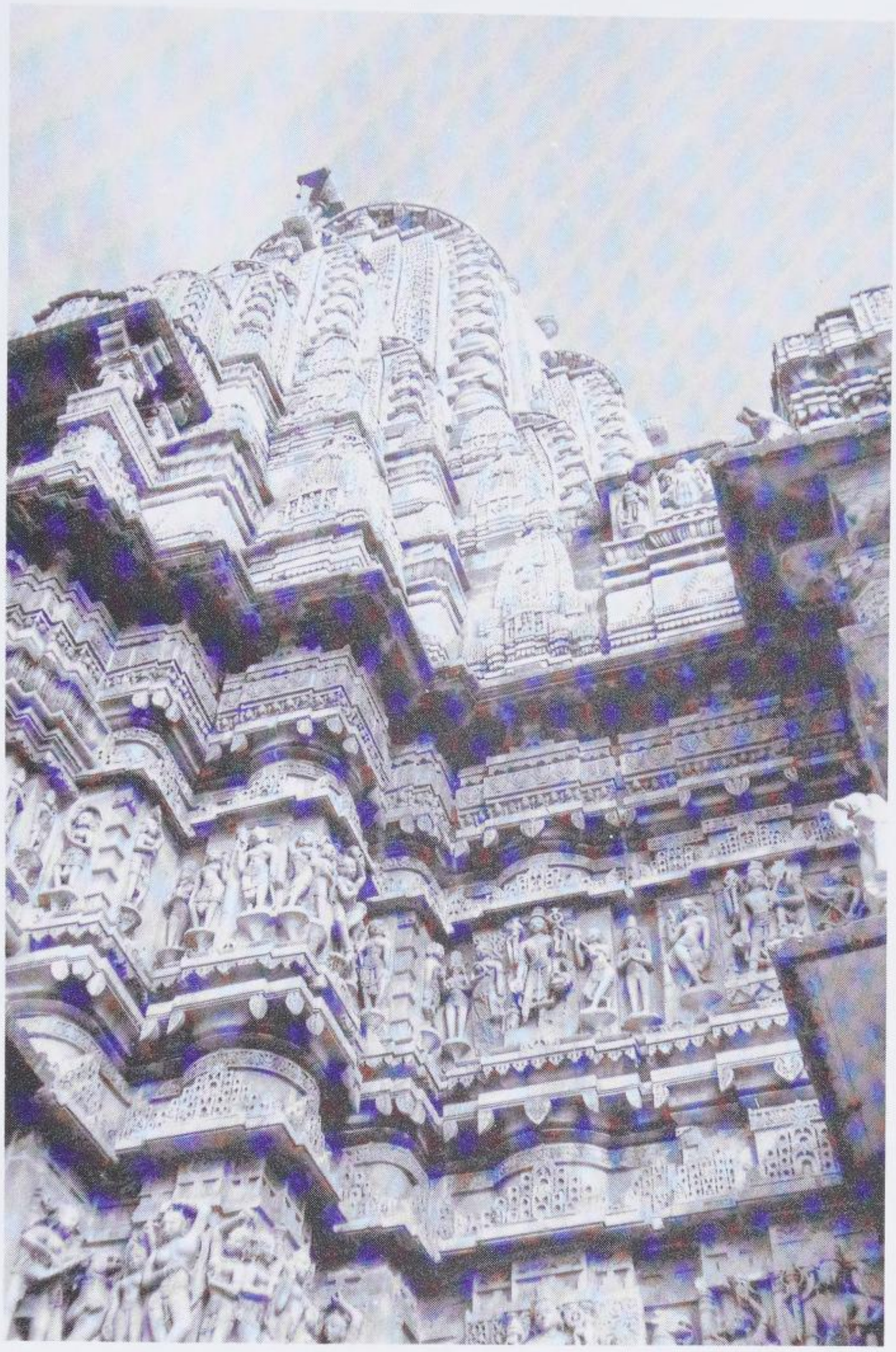
After the Badi Mahal, the area around Mor Chowk was further developed [131]. Over the Manak Mahal was added a suite of rooms including the Moti Mahal, the Bhim Vilas and the Nila Mahal; over the Surya Chopar was added the Priyatam Niwas; and over Mor Chowk's veranda an enclosed corridor, called Surya Prakash, was added to link the Nila Mahal and the Priyatam Niwas.

The Moti Mahal is a *sheesh mahal*; its walls are entirely lined with plates of mirror and the openings of its projecting balcony are filled with coloured glass. The adjoining Bhim Vilas is a small *puja* room, its walls decorated with murals depicting the Krishna-Lila. The Nila Mahal [135] and the Priyatam Niwas both overlook Mor Chowk, and in each of them the *chowk* side has a continuous row of windows. These are all private apartments and their addition here caused for the first time a close juxtaposition of private and public areas. This is not accidental: it is probable that the rooms were intended as a resort for the women, from which they could watch public proceedings in Mor Chowk. The presence of *purdah* shutters on the windows of the Nila Mahal and the Priyatam Niwas supports this suggestion.

The use of many small windows, rather than a few large ones, is typical of the development of the style represented by this phase of the palace's construction. Forms are reduced in size and multiplied. They are modified too: the cusped arches in these new rooms are rounder than before and have more and smaller foils, so that they appear to have been punched out with a pastry-cutter. Many of them are double arches, with one arc of foils behind another; on a larger scale this might enrich the form, but on such a small scale it turns the arches into frills. If the earliest parts of the palace are stylistically vigorous and heavy, and if in the Badi Mahal the style is made delicate and restrained, then in these late apartments the style is emasculated, with architectural forms becoming three-dimensional decoration. This is comparable with contemporary developments outside Udaipur, particularly in the palace buildings of Jaipur.

Much of the applied decoration in the late apartments is more recent than their construction. The glass-work of the Surya Prakash is mid-nineteenth century in date [134], and there is evidence of remodelling in the Nila Mahal. It may be noticed that although much energy was expended in the remodelling and redecoration of various parts of the *mardana*, including the women's resort there, throughout the eighteenth and nineteenth centuries, no such effort was made in the *zenana* proper until the late nineteenth century.

The final court of the Udaipur palace, the Badi Chatur Chowk, was added over the Nila Mahal and the Moti Mahal. Apart from the small, enclosed Shiv Vilas (another *puja* room) it is an open, airy court, dominated but not enclosed by tall, open pavilions. Stylistically, it is similar to and as degenerate as the apartments below it. The use of Dutch tiles in the main pavilion, the Badi Chatur Shali,[29] suggests a loss of conviction, a desperate search for novelty [137]. However, the



138. Udaipur; the *sikhara* of the Jagdish temple (1652)

glass mosaic on the western wall of the *chowk* shows a greater faith in traditional ideas, for despite its foreign subject matter, its style and technique represent an aggrandizement of Rajput folk art [*x*]. And much is redeemed by the situation of the court at the top of the palace, where it commands spectacular views [*xi*].

It is sometimes remarked that although the various apartments of the Udaipur palace were built at different times there is a uniformity of style between them;[30] but, on the contrary, the apartments bear witness to the development of the style over the long period of the palace's construction, and such uniformity as there is, is a consequence of the later remodelling of some parts.

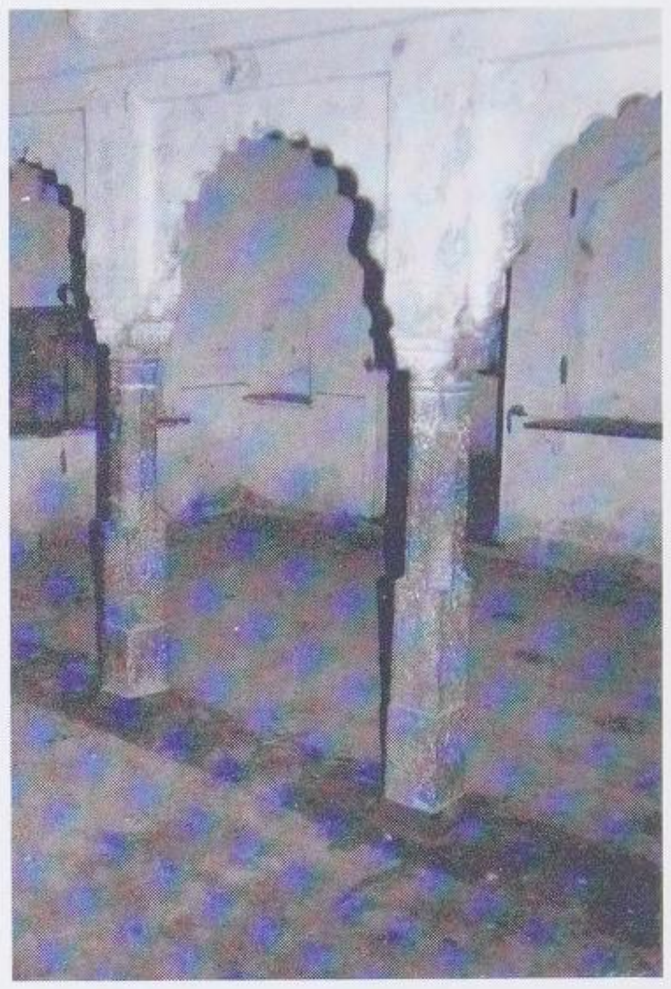
Indeed, the juxtaposition of different phases of the style is more marked in Udaipur than anywhere else. There is, to begin with, a strong conservative tendency. This is apparent, for example, in the Sabha and in Rajya Angan Chowk [110]. True, one might expect these early parts of the palace to be based on Chitor models, but the same conservatism is found in later parts – as is shown above, the throne rooms flanking Mor Chowk were originally thoroughly conservative. Other later buildings by the Udaipur Maharanas show an even greater conservatism. The Jagdish temple [138], built at the end of the reign of Jagat Singh I (1628–52),[31] is a re-creation of the great temples of the medieval Rajput dynasties, such as the Chandels of Khajuraho [47]. Between 1662 and 1676, Jagat Singh's successor, Raj Singh I (1652–80) created an artificial lake, Rajsamand, forty-two miles north of Udaipur

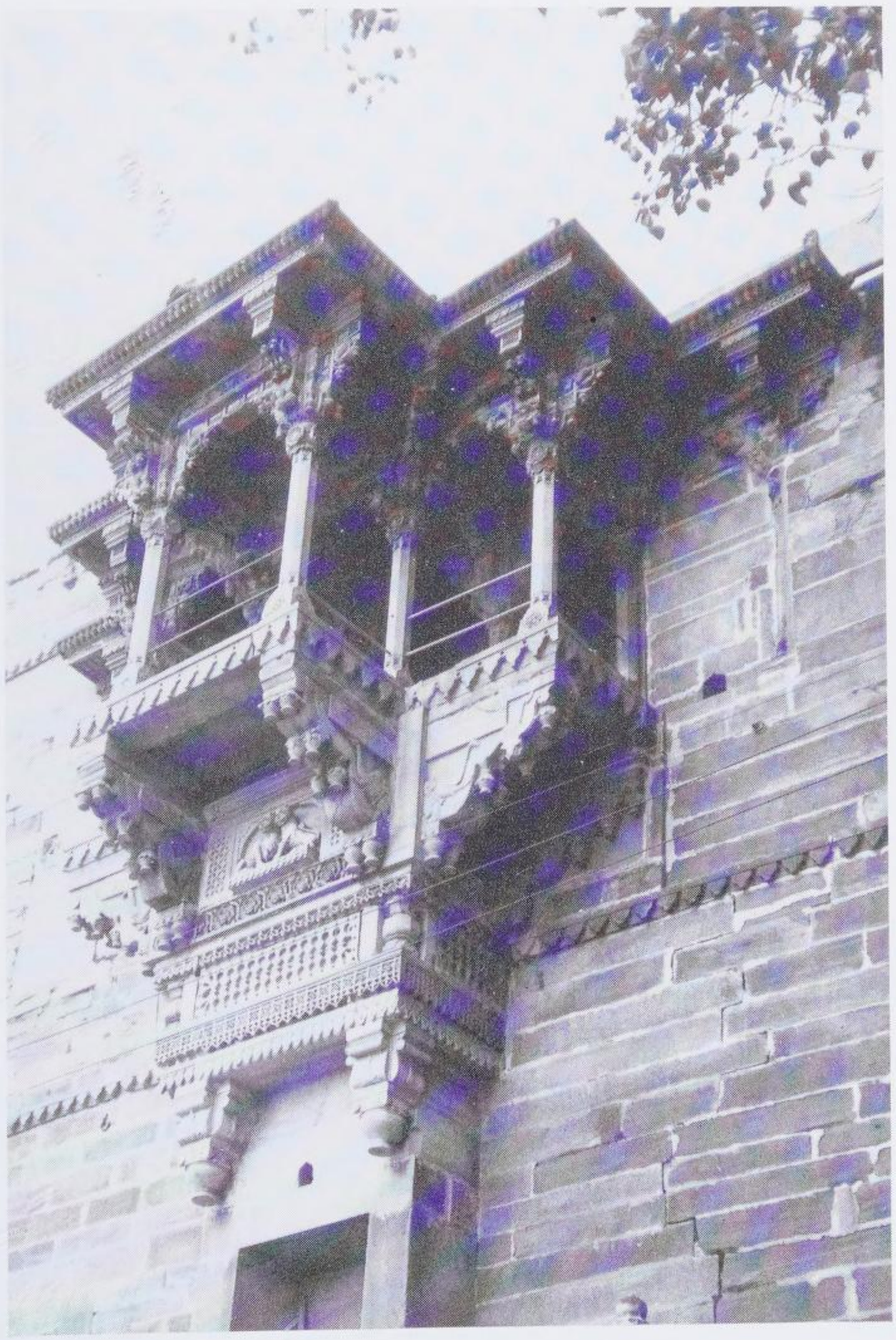
[8]; the pavilions which adorn its *bund* show no stylistic progression from the thirteenth-century Jain temples of Mount Abu.

On the other hand, there was at the same time a progressive tendency, indicated by the use of more modern forms. The progressiveness was often tempered by the innate conservatism, as if the architects were resisting their own temptation to be radical, and resulted in some intriguing mixtures. An example given above, is the use in the Chandra Mahal of cusped arches, some of which are widened to make them resemble corbelled arches [44]. These arches are carried on plain piers, but also in the room are more conventional temple columns, and the juxtaposition of the two suggests a similar indecision between new and old. The Chandra Mahal was built all at once; in other apartments of the palace, modernizing revisions result in comparable odd juxtapositions – as in the cloisters flanking Mor Chowk – though in these cases it is more by accident than by design.

The juxtaposition of old and new forms reaches its zenith – it could hardly be called a logical conclusion – in the Sabrat Vilas, a small pleasure palace built in the south of the city by Raj Singh I. In one small balcony of this palace is a cusped arch, not just in close proximity with but supported by temple columns. In the process of replacing archaic forms with new ones, the idea of attempting to combine them naturally arose, and the unnatural result, this strange chimaera, was born also in the states bordering Udaipur: in Dungarpur, Bundi [139] and Kota. The mixture is wilfully perverse, defying convention and mocking innovation.

139. Bundi; a colonnade in the Rampuria ki Bagichi (1602)





140. Benares; a balcony on the Man Mandir (1592–1615)

xi (facing). Udaipur City Palace (from 1567); pavilions on the east front

141. Udaipur; the Mohan Mandir (1628–52)

Pleasure

The different attitude to Mughal authority of the rulers of Amber and Udaipur is reflected in the lesser palaces, as opposed to the *garh* palaces, which they built. In Amber there are no pleasure palaces; the rulers were too preoccupied serving as military commanders or regional governors to require them. Apart from his contribution to the *garh* palace, Man Singh was responsible for a small palace, the Man Mandir, built on the river front at Benares, but this is not a pleasure palace; it probably served both as a religious retreat and as a base for Man Singh's campaigning for the imperial cause in Bengal and Orissa. Much rebuilt in the last century, it was never a distinguished building, apart from one particularly fine projecting balcony at the north end of the east front [140]. The small observatory on the roof of the palace was added by Man Singh's descendant, Sawai Jai Singh II.

The city of Jaipur, the seat of the Amber rulers in a period of greater independence from Mughal authority, does have some pleasure palaces. Udaipur, too, has many, varied in size, date and function. Some are built on tiny islands in Pichola Lake and are little more than picnic sites; one such is the Mohan Mandir, built in the north-east corner of the lake by Jagat Singh I [141]. The Sahelion ki Badi is a garden palace for concubines, built by Sangram Singh II (1710–34). Jag Niwas was a pleasure palace built in the middle of Pichola Lake by Jagat Singh II (1734–51) [*xii*], but much of the original structure has been subsumed in the recent process of converting the palace into the famous Lake Palace Hotel. Like other lake palaces it entirely covers the small island on which it is built, so that it appears to float.

Similar in conception but a century older is the pleasure palace built on Jag Mandir, an island in the southern part of Pichola Lake. There is much disagreement concerning the date of the Gul Mahal, the earliest and largest single part of this palace [142]. From the name Jag Mandir it is supposed that the project was the work of Jagat Singh I, who succeeded to the *gaddi* in 1628; but it is known that the Gul Mahal was used as a sanctuary by Shah Jahan when, as the heir to the imperial throne, he led an unsuccessful revolt against his father Jahangir, and that rebellion must have occurred before Shah Jahan's succession in 1627. The impossibility of reconciling these two accounts has led to various confusions. The true circumstances, recorded by the Jagannatharya inscription, are simple enough: the palace was begun by Karan Singh (1620–28), and completed by and named after his successor Jagat Singh.[32] Shah Jahan's revolt took place in 1623.[33]

It was Shah Jahan who, a few years earlier (when he was known as Prince Khurram), had been responsible for bringing Udaipur under the Mughal yoke, and the fact that he was subsequently welcomed as a refugee is a measure of the generosity of the terms granted to Udaipur on the earlier occasion. But the favoured notion that the Gul Mahal was built expressly for Shah Jahan[34] romanticizes the hospitality:

Shah Jahan stayed in Udaipur for only a few months[35] and the Gul Mahal could not have been designed, built and lived in in such a short time.

At the top of the Gul Mahal is a room entirely lined with white marble and decorated with inlaid coloured stones; it narrowly anticipates the first Mughal use of such a scheme, in the tomb of Itmad-ud-daulah at Agra (1626), though the Mughal example is more lavish. This room of the Gul Mahal and the one below it are both round – an unusual shape for a plan in Rajput architecture – and together they form a round tower. In front of them are rectangular halls with temple columns. The relation between the two masses – the round tower and the rectangular block containing the halls – is awkward. The white marble *chattris* with *bangaldar* roofs on the main front of the palace exacerbate the awkwardness by helping to obscure the dome; but, since they are quite out of proportion with the rest of the palace, they may be later additions. The *bangaldar* roof is uncommon in Udaipur: apart from these, there is one on the balcony of the Sabrat Vilas mentioned above, but there are none in the City Palace.

The three pavilions at the west end of Jag Mandir were added by Sangram Singh II before 1720 [143]. Though more open and smaller than the Gul Mahal, each of them echoes its form, with a round portion behind and a rectangular one in front; there is still no satisfactory relation between these two parts. Along the northern fringe of the island is a continuous line of arcades and open, columned halls [*xiii*]. Here again is found the familiar Mewari mixing of temple columns and cusped arches in close proximity.

142. Udaipur; the Gul Mahal, on Jag Mandir (1620–30)

143. Udaipur; pavilions at the west end of Jag Mandir (1710–20)

No single building on Jag Mandir is totally satisfactory, but the overall composition is thoroughly picturesque; and its setting, in the large lake bordered on the east by the City Palace and on the west by a part of the Aravalli range, is quite lovely. Open and unprotected, Jag Mandir has none of the severity of the City Palace; it has dignity without grandeur, and beauty without opulence.

SEVEN

JAISALMER, BIKANER AND JODHPUR: The Desert

Lying in a great arc across the northern and western reaches of Rajasthan is a belt of infertile sand, breaking out occasionally into patches of burnt scrub but for the most part consisting of wind-dented dunes; this is the Thar, or Indian Desert. Two Rajput clans in particular have made this region their home, but neither by first choice. The Bhattis fled into it early in the eleventh century to escape the persistent, almost annual raids into the Punjab by Sultan Mahmud of Ghazni. They founded a succession of capitals for their new desert kingdom: Tanot, Deorawal, Lodarva, and finally Jaisalmer, founded by Rawal Jaisal in 1156 [*xiv*].

The Rathors came to the district later but under similar circumstances – as a result of the activities of the next great Muslim invader of India, Muhammad Shahabuddin Ghuri. Muhammad Ghuri, who had defeated Prithviraj III of Delhi in 1192, subsequently defeated Prithviraj's cousin, the Rathor Jai Chand, king of Kanauj. Jai Chand's son, Harish Chand, succeeded his father, but Hindu resistance to the newly established sultanate was broken and Harish Chand was soon expelled from Kanauj by Sultan Iltumish. It was Harish Chand's nephew, Siha, who led the clan into the desert in search of a new kingdom. In 1212 he was asked by a community of Brahmins at Pali if he would protect them from local Mina tribesmen; he complied with this request and then, taking the tribesmen's place, established a state on the basis of protection money.[1] Chonda, the tenth successor to Siha, received Mandore in a dowry and made it his capital, but following the occupation of Mandore by Chitor forces between 1438 and 1453, Rao Jodha moved the capital to the more easily defensible Jodhpur in 1459.

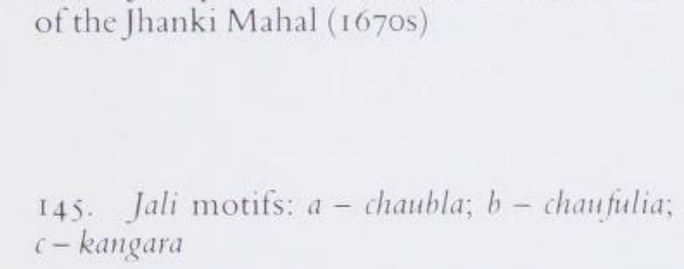
A younger son of Jodha, named Bika, with no hope of succession, moved north to found his own kingdom. In 1485 he built a small fort, and three years later he founded the city of Bikaner.

The inaccessible location of these desert states made them, even more than other parts of Rajasthan, havens for Jains seeking refuge from Brahmanical-inspired persecution in the medieval period. It also, later, gave the states relative immunity from Muslim intervention. When, towards the end of 1570, Akbar pitched camp at Ajmer to receive homage from the Rajput chiefs, the rulers of Jaisalmer, Bikaner and Jodhpur were among those swearing fealty; but throughout the remainder of the Mughal period relations between these states and the empire were uncertain. The rulers of Jodhpur in particular were alternately loyal and rebellious, and the capital was occupied for long periods by Mughal garrisons. The three states added to such uncertainty by fighting each other incessantly.

The location of the states in the desert also had some effect on their architecture, creating a regional variation in the Rajput style. The primary feature of this variation is the much more extensive use of *jali* screens. In the *garh* palaces of Jaisalmer,

144. Jodhpur Fort Palace; the south front of the Jhanki Mahal (1670s)

145. *Jali* motifs: *a* – *chaubla*; *b* – *chaufulia*; *c* – *kangara*



Bikaner and Jodhpur, *jali* screens are used not across windows but as panels in large areas of wall (the windows are often fitted instead with wooden shutters); and *jalis* appear not only in the *zenanas* but occasionally even in the *mardanas*. In places they are so extensive that entire walls are no more than thin perforated screens, which protect the apartments within from the strong sunlight while admitting the slightest breeze [144]. In addition to this functional aspect, the *jalis* are minutely and deeply carved; they represent a response not only to the local climate but also to the local material – a sandstone which is easily worked but which hardens on exposure, lending itself to decorative carving.

In this decoration a rich variety of patterns is employed. Two especially common patterns are *chaubla* – a chequerboard of which the alternate squares are holes – and *chaufulia* – a regular arrangement of four-petal flower heads with diamond-shaped spaces between them [145]. Of the other patterns, most are essentially geometric though they often incorporate biomorphic details.

Another feature of the desert variation of the Rajput style is the more extensive use of the *bangaldar* roof, particularly in a modified form. The original form, as it is found in Bengal, consists of a shallow dome covering a rectangular area and curved more deeply along its long axis than across its short one, resulting in curved eaves on the long sides, each bent like a bow. It is this form which is imitated faithfully on some pavilions of Shah Jahan's palace in the Agra fort [19], and on the Jess Mandir in the palace of Amber [125]. In more common Rajput usage, the form is smaller, the curved eave is made by an exaggerated bent *chajja*, and

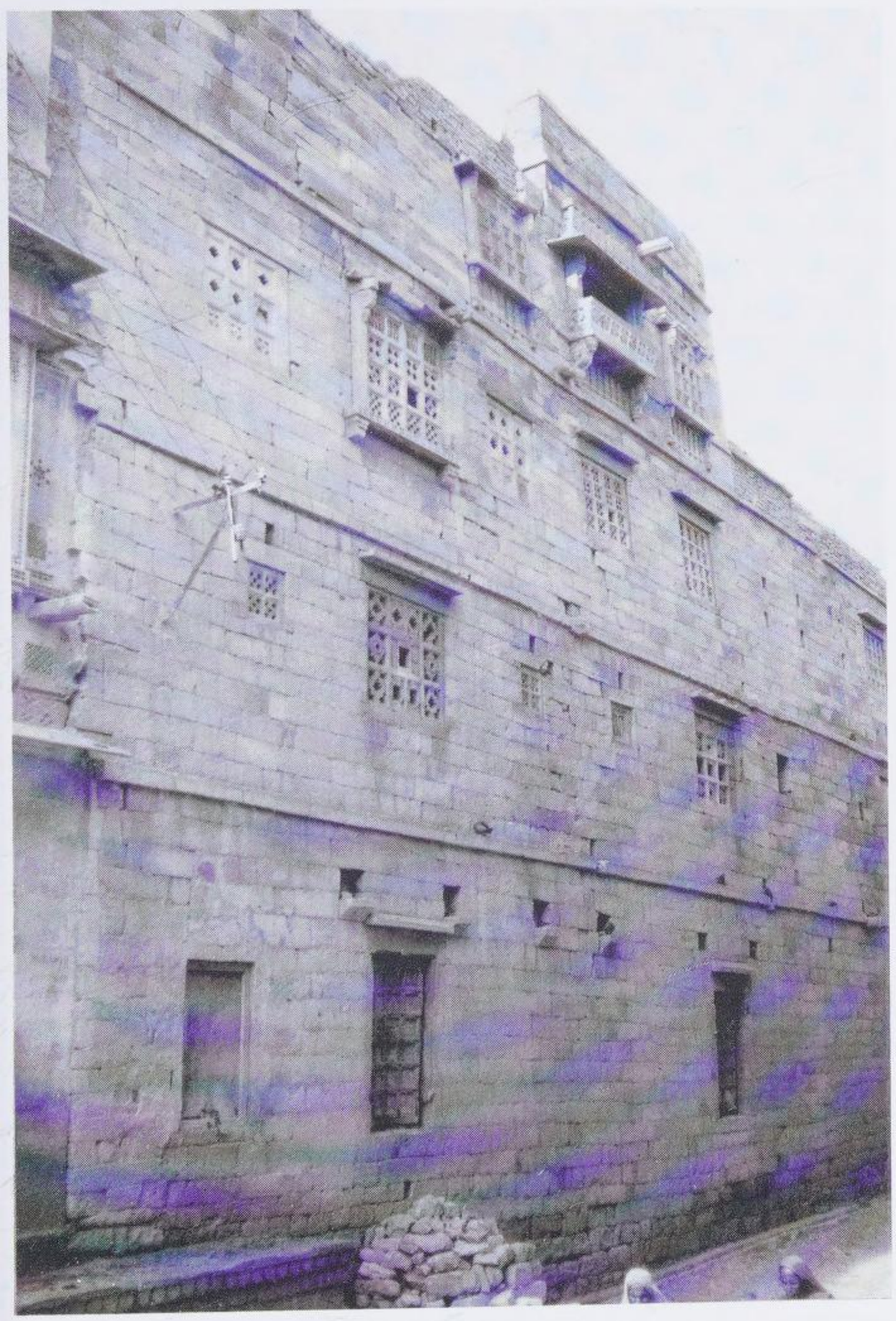
a rather shapeless, blockly dome sits uncomfortably on top. This is the form found, for example, in the Gul Mahal on Jag Mandir, in Udaipur [142]. However, in the desert palaces, the form is used less to crown pavilions than to cover shallow projecting balconies [144]; the domes consequently become redundant, and they are either merely represented in relief sculpture or dispensed with altogether, leaving only the bent *chajja*, more exaggeratedly protruding and more deeply curved, even to a semi-circle. Against all the intricate detail of the carved facades, these *bangaldar* eaves are powerful motifs. They disrupt and play with the rhythms established by the strong horizontals of the more conventional *chajjas*.

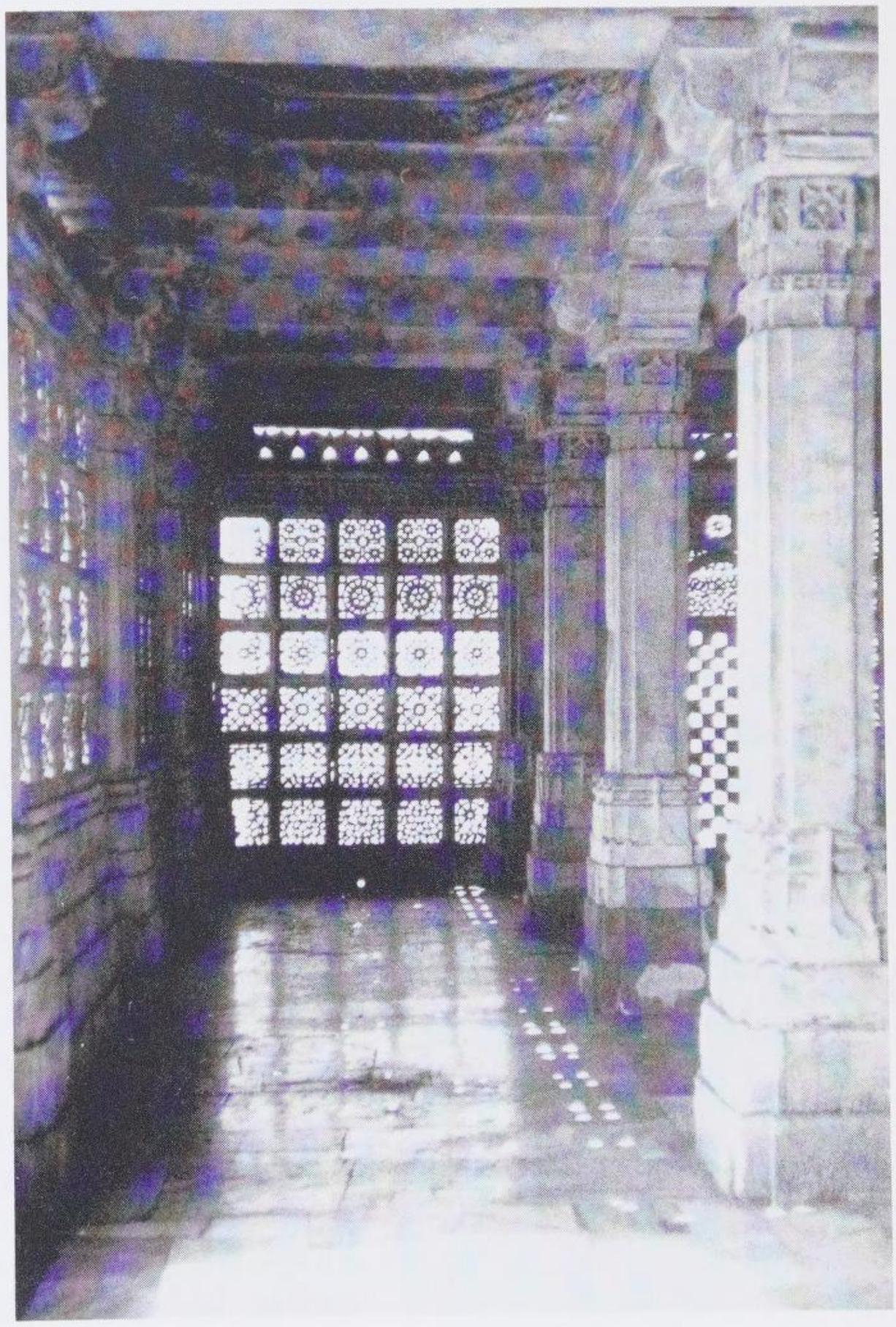
A more extensive use of two features – the *jali* screen and the *bangaldar* eave – both of which are found in other Rajput palaces, does not amount to a very considerable alteration in the Rajput style. There are some other differences, especially in Jaisalmer (and these are considered below), but in general there is little stylistic difference between the desert palaces and the other Rajput palaces, despite the substantial difference in terrain. This suggests that at least some of the major craftsmen were peripatetic; for if each state had employed its own craftsmen working in isolation then the regional differences, determined among other things by the response to regional conditions, would surely have been greater.

In all three desert capitals the architectural tradition, and especially the tradition of decorative carving, survived into the twentieth century, with little modification

146 (left). Jaisalmer Fort Palace; the Juna Mahal (c. 1500)

147. Sarkhej; *jalis* in the tomb of Mahmud Begada I (c. 1511)





after the eighteenth century.[2] The three *garh* palaces underwent extensive alteration over long periods, and though it is often difficult to date particular apartments because of the continuity of style, it seems clear at least that in each case nothing of the original structure and only very little built before 1600 now survives.

Jaisalmer

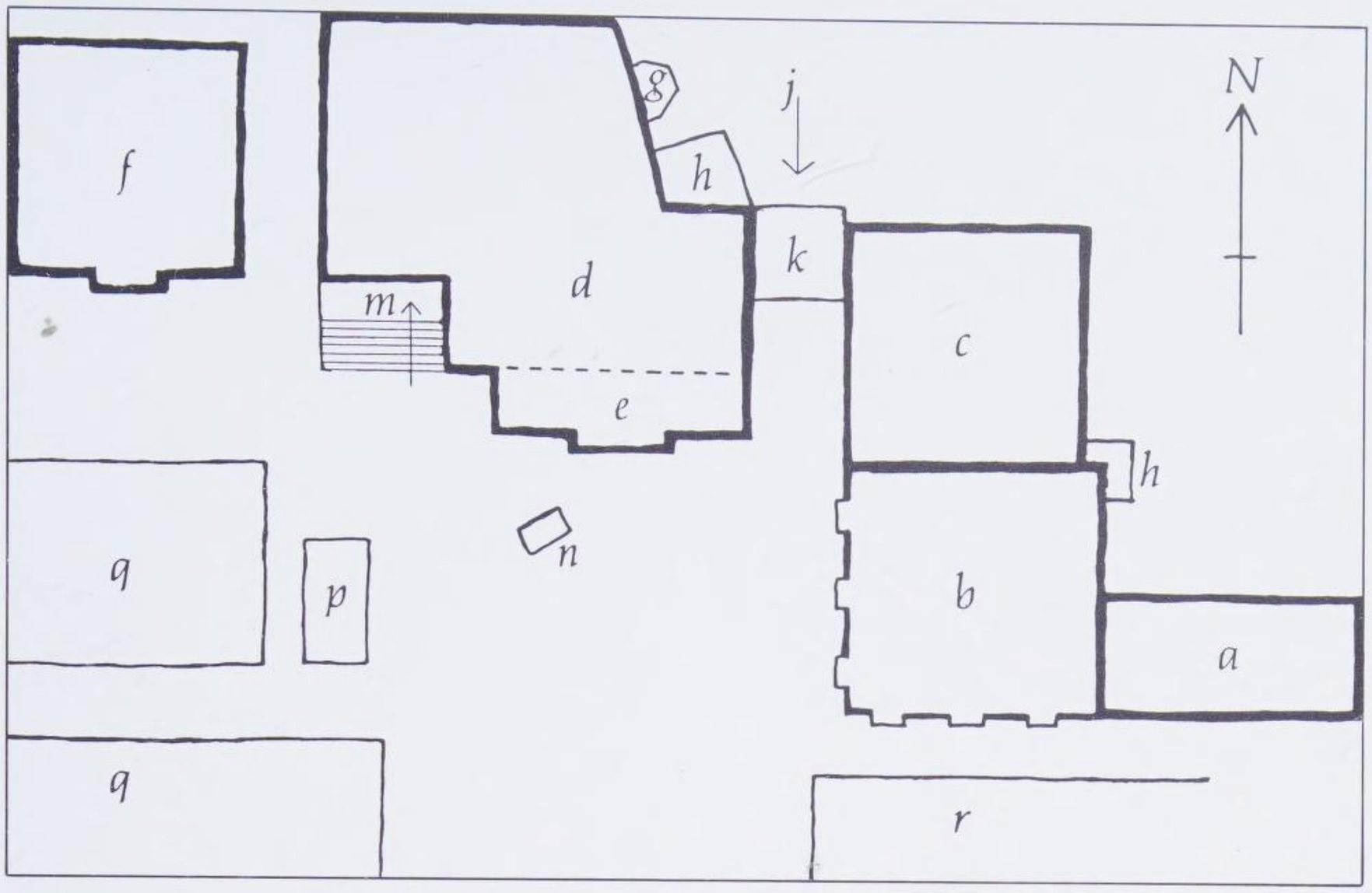
The difficulty over dating is especially acute in Jaisalmer where the only commonly attributed parts of the *garh* palace are attributed to rawals of the eighteenth century and later. However, there are some parts of it which stylistically appear to be considerably earlier than that.

The fort of Jaisalmer entirely covers a roughly triangular hill which rises 250 feet above the surrounding plain and is 1500 feet across at its widest point. The massively thick double fort wall is constructed, like all of the buildings in Jaisalmer, of the local honey-yellow sandstone, without a covering render. The wall was built and repaired over many centuries, but the most extensive contribution to it was made by Rawal Bhim Singh (1578–1624). The *garh* palace stands at the highest point within the fort, bordering two sides of an open square, known as the Chauhata. One part of the palace, adjoining but slightly to the east of the others, is hidden by them from the square. With its uniformly trabeate construction, its shallow *jarokhas* projecting on corbels, and its temple columns, this unnamed building is evidently the oldest surviving part of the palace – for this reason it might aptly be called the Juna Mahal or 'old palace' [146].

The windows of the south front of this building are all fitted with *jali* screens. Each window is a square subdivided into smaller squares by stone mullions and transoms; and each of the smaller squares has a screen with a single, large, perforated motif. These *jalis* are coarse and heavy antecedents of the finery that follows, but they have a certain virile splendour. They remind us that the *jali* in India has its origin within the Hindu tradition, because they closely resemble the perforated screens of the mid-fifth-century Lad Khan temple at Aihole in the Deccan. Also in imitation of the Aihole screens are those in some of the monuments in Gujarat built for the Muslim sultans by Hindu craftsmen. One such monument is the tomb of Sultan Mahmud Begada I at Sarkhej (c. 1511) [147]. Here, as in the Aihole temple and the Juna Mahal at Jaisalmer, the larger space is subdivided by stone mullions and transoms, and each of the smaller squares has a single design.

The Sarkhej and Jaisalmer *jalis*, however, are somewhat more refined than those at Aihole, and are particularly close to each other in workmanship – a correspondence which suggests that the Juna Mahal may be about contemporary with the Sarkhej tomb, that is to say, built about 1500. This date would place the Juna Mahal among the oldest surviving Rajput palaces, and there is nothing in its design to refute this. Indeed, with its appearance of grim strength, relieved by irregularly arranged patches of decorative carving, it is not dissimilar to the palaces of Chitor.

Because the perforated screens and the institution which they particularly serve – namely *purdah* – are both associated with Islam, it might be assumed that the use of *jalis* in Rajput architecture is a mark of Islamic architectural influence concomitant with a social influence. However, such an assumption would be unjustified. To begin with, the introduction of *purdah* itself in Rajput society is not a sign of Islamic influence: as shown above, the protection of royal women from a wide public is recommended by ancient Hindu treatises which predate the Muslim era,[3] and the oldest Rajput palaces achieve that even if they do not have distinct *zenanas*. Secondly, the Aihole temple demonstrates that the *jali* was similarly a part of the ancient Hindu tradition (though no example of its use in secular ancient Hindu architecture now survives). And thirdly, in Indo-Islamic architecture the *jali* is not in fact especially connected with the *zenana* (as it usually is in Rajput architecture),



148. Jaisalmer Fort Palace; a sketch plan (not to scale): *a* – Juna Mahal; *b zenana*; *c* and *d* – original *mardana*; *e* – Gaj Vilas; *f* – Moti Mahal; *g* – Nakkar Khana; *h* – bastion; *j* – ascent ramp; *k* – Hawa Pol; *m* – ceremonial steps; *n* – well; *p* – royal temple; *q* – range of *havelis*; *r* – Kanwar Pade ka Mahal

but more particularly with tombs. The Sarkhej tomb is an example from the pre-Mughal Indo-Islamic period; the Mughals continued the tradition, for example, in the tomb of Sheikh Salim Chisti at Fatehpur Sikri and the tomb of Itmad-ud-daulah at Agra.

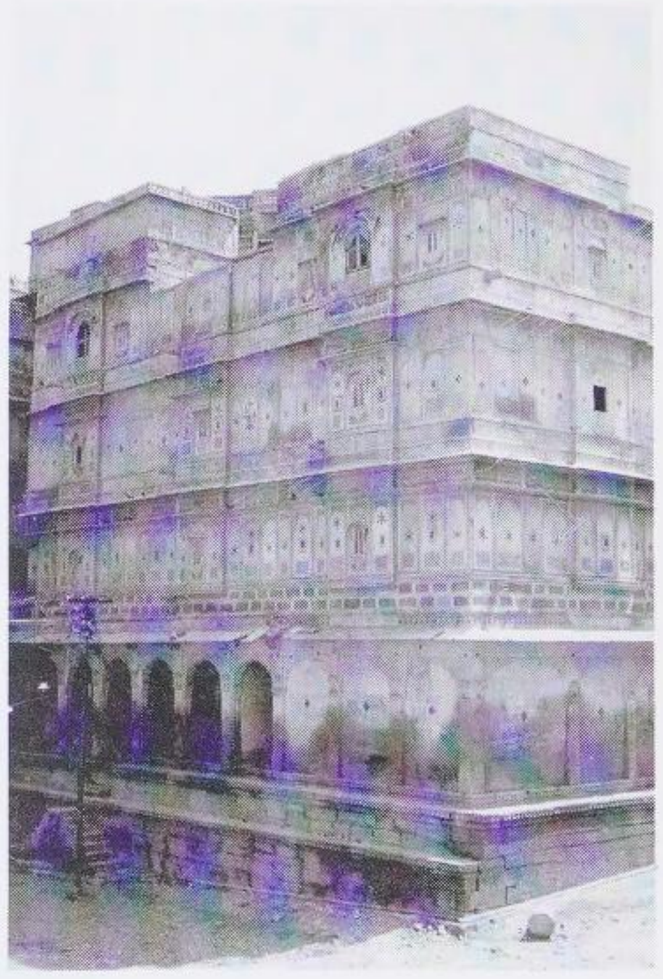
Apart from the Juna Mahal, the Jaisalmer *garh* palace includes a *zenana* to the west of the Juna Mahal, and a *mardana*, which stands to the north of the *zenana* and incorporates the Hawa Pol, the gate at the head of the fort's ascent ramp [148]. These buildings form a continuous palace range, though several distinct blocks are distinguishable within the range.

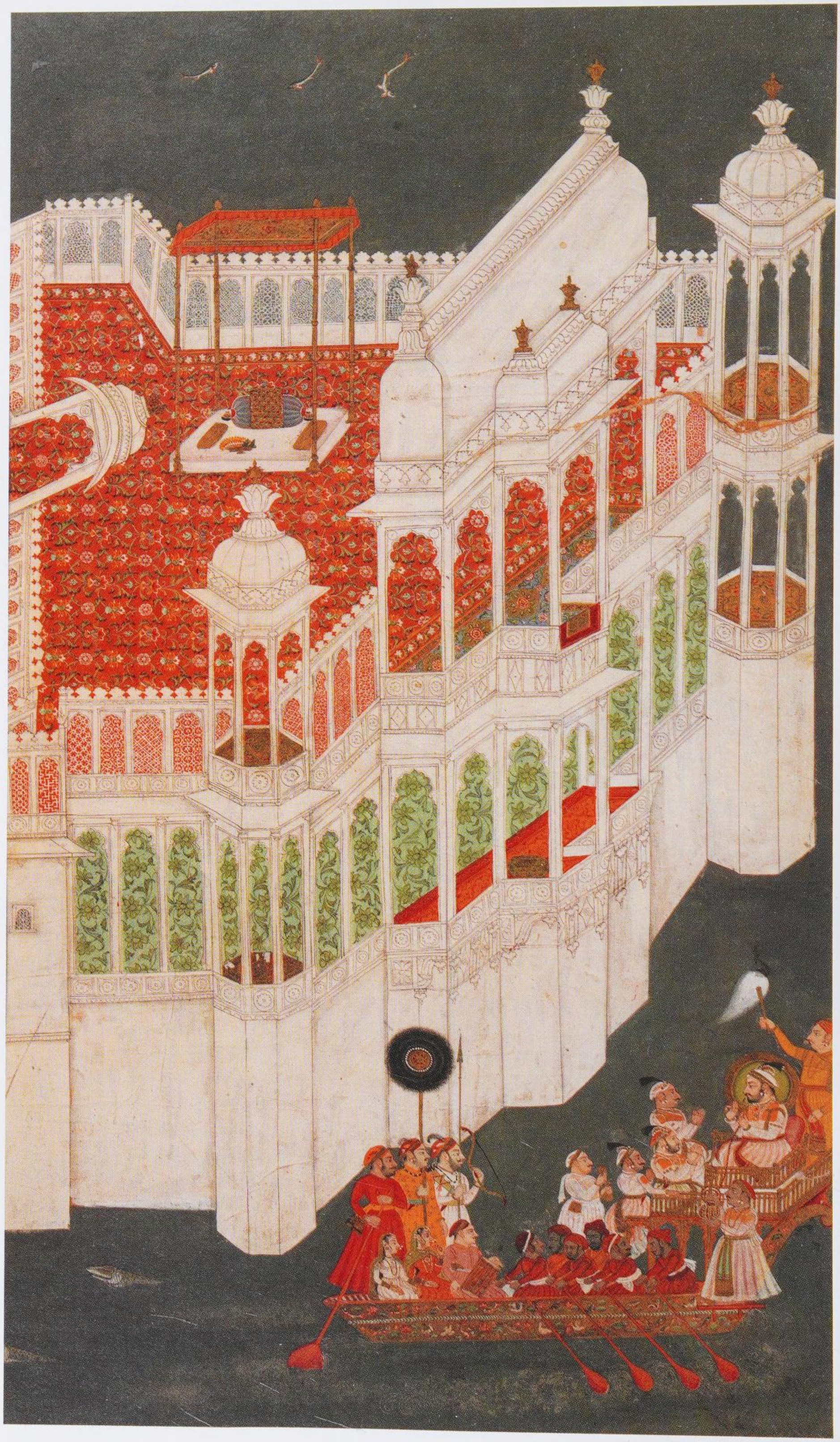
One such block is the *zenana*. The facades of the *zenana* facing the Chauhata are composed of flat, vertical slabs, each of which is decorated individually [149]: motifs are repeated but the pattern does not cross the joins between the slabs. Each facade is therefore, in both fact and appearance, a series of panels rather than a supporting wall, and has an apparent flimsiness which belies the heavy massing of the building as a whole. The regular four-storey block is monotonous as well as heavy in form, with no projecting balconies to lend variety. The slight vertical projections in the facades and the horizontal *chajjas* cast shadows which divide up the large surfaces, and so they represent some small attempt to create variety; but the architects have relied more on the surface decoration.

The decorative motifs employed include *chaubla* and *chaufulia*, and a band of interlocking flower heads known as *kangara* [145]. Much of the decoration on this building is in fact merely deep carving rather than perforation. This has the same appearance from the outside because the shadows look like holes, but it does not serve the same function. These purely decorative, imitation *jalis* are found alongside genuine ones in many of the buildings of Jaisalmer.

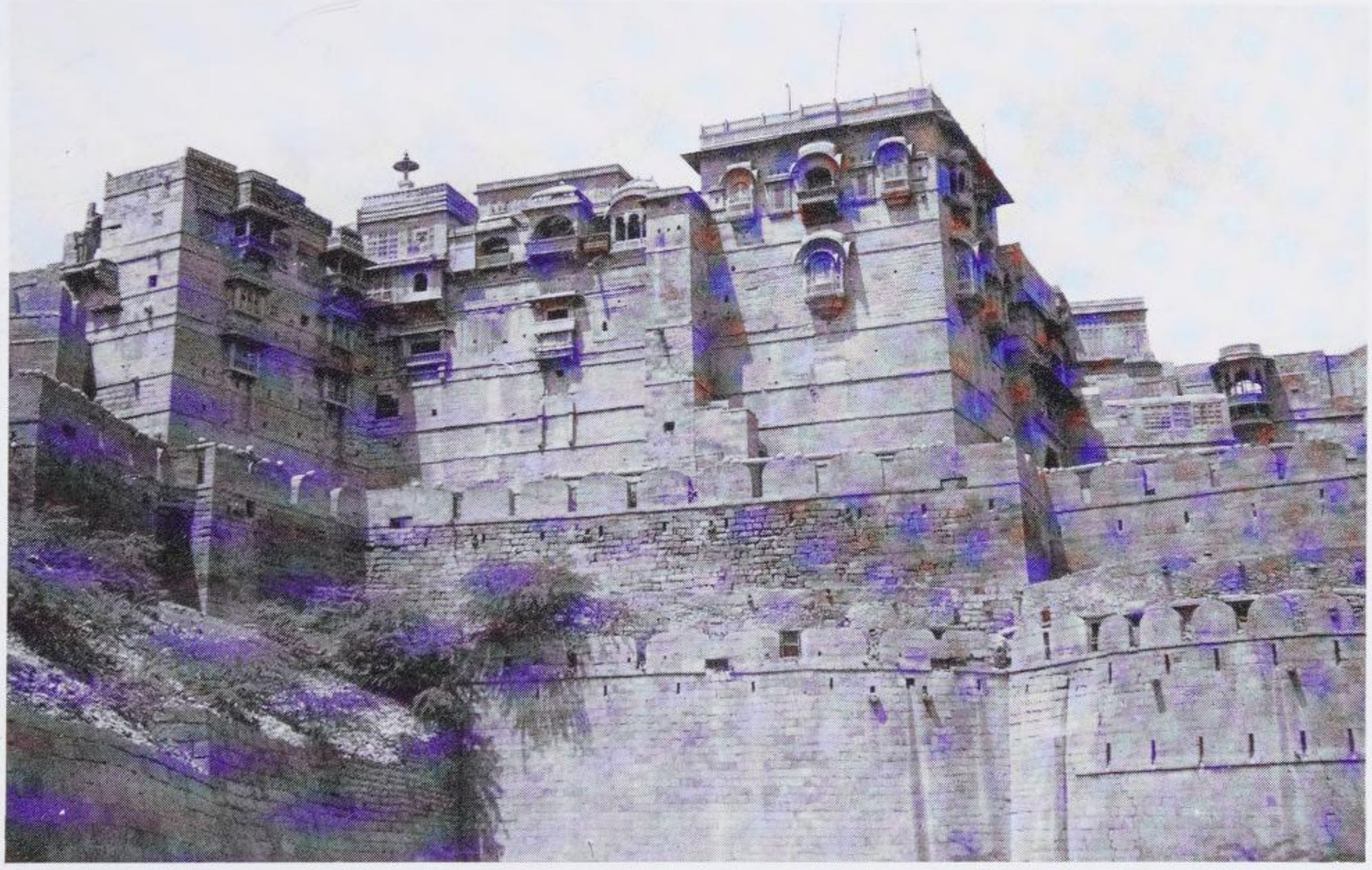
The *mardana* is an extensive building, composed of two principal blocks (marked *c* and *d* on the plan) with various additions [148]. The two principal blocks are seemingly regular. Each of them, like the *zenana*, has an external uniformity but internally is quite irregular: it is a maze of high-level courtyards and apartments, compiled in the customary Rajput manner, but contained within regular boundary walls. On its northern and eastern fronts, the *mardana* (again like the *zenana*) has

149. Jaisalmer Fort Palace; the *zenana*, from the Chauhata (16th–17th centuries)





150. Jaisalmer Fort Palace; the north front of the *mardana* with (right) the top of the Hawa Pol (16th–17th centuries)

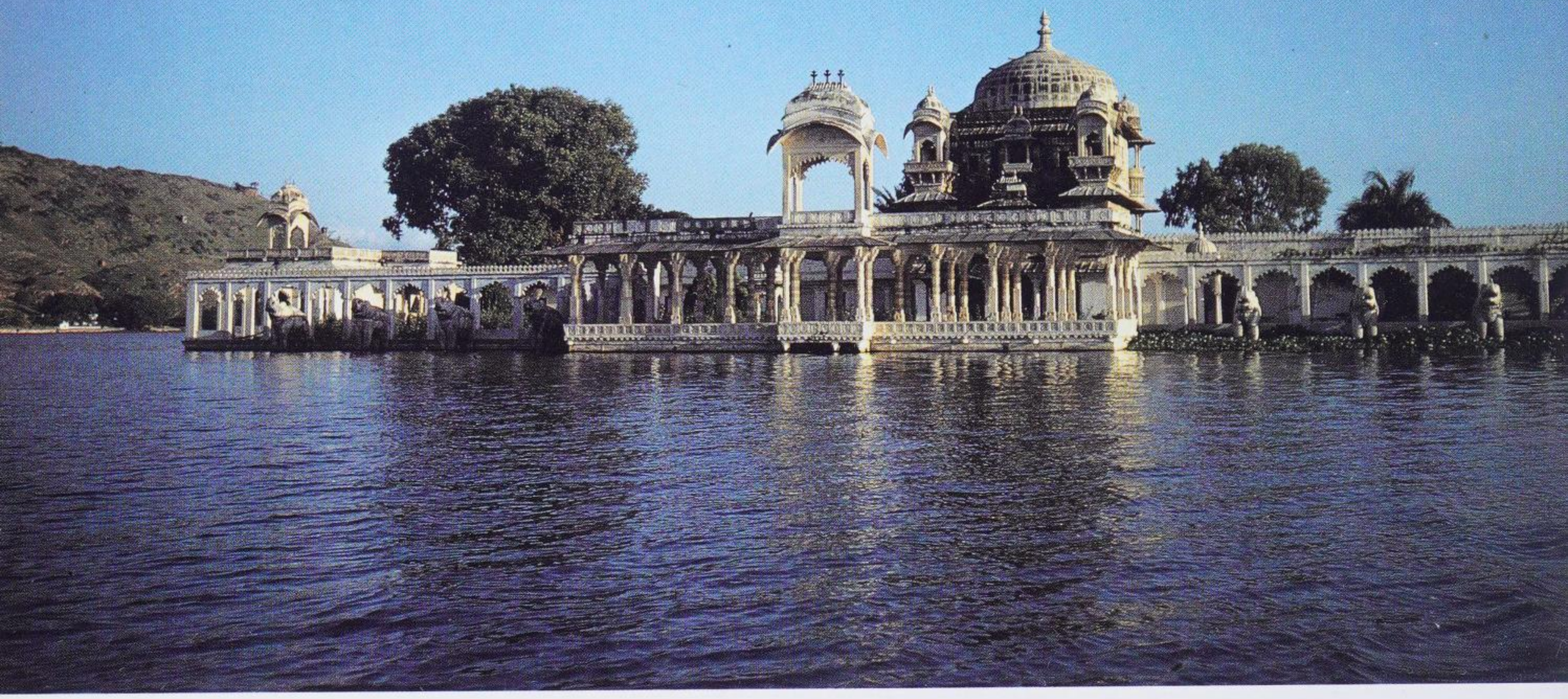


151. Jaisalmer Fort Palace, from Akhai Pol

numerous *jarokhas* overlooking the ramparts [150, 151]. These are regularly disposed on the facades but are of various designs, as if the craftsmen wished to show off their wide repertoire of decorative forms.

The *mardana* is unusual in containing no public space; instead there is a flight of steps attached to the palace wall in the north-west corner of the Chauhata [152]. On the top step is a marble throne and here the rawal appeared before the people, especially to celebrate religious festivals with them. Further contact was provided by means of the octagonal balcony projecting from the palace wall just outside the Hawa Pol. This balcony was a *nakkar khana*: it contained a drum, and from

xii (facing). Maharana Jagat Singh II boating on Pichola Lake, passing a pavilion at the north end of Jag Niwas (Udaipur School, c. 1740)



xiii. Udaipur; Jag Mandir (1620–30)

it important news was reported to the citizens.

Inside the *mardana*, the apartment known as the Sarvottam Vilas is attributed to Maharawal Akhai Singh (1723–62) and the Rang Mahal to Maharawal Mulraj II (1762–1820).[4] The Rang Mahal contains some fine murals, depicting views of Jaisalmer, Udaipur and Jaipur;[5] it also has some mirror-work decoration and floral murals. The attribution of these rooms, even if correct, probably refers only to the internal arrangements, since externally the buildings which contain them appear older. Some of the *jarokhas* employ archaic forms and trabeate construction. This, together with the general solidity and heavy style (reminiscent of the oldest Rajput palaces), and the prime location, suggest that the principal parts of the *mardana* were constructed much earlier than the attributed interiors.

On the other hand, the heavy style is partly a result of the use of immensely thick blocks of stone for insulation against the sun, and of the universal absence of plaster, which leaves the grain of the stone and the structure of the walls clearly visible. The raising of the buildings on plinths, intended to prevent the sand blowing in, also enhances the effect. These regional peculiarities perhaps make the Jaisalmer palaces look older than they are. There is also some evidence of a conservative tendency in Jaisalmer: all of the gates of the ascent ramp are trabeate in construction, including not only the three built by Bhim Singh (1578–1624) but even the Akhai Pol, the outer gate added by Akhai Singh in 1740. However, even taking all of this into account, it is unlikely that the main parts of the *mardana* were built later than the seventeenth century.[6]

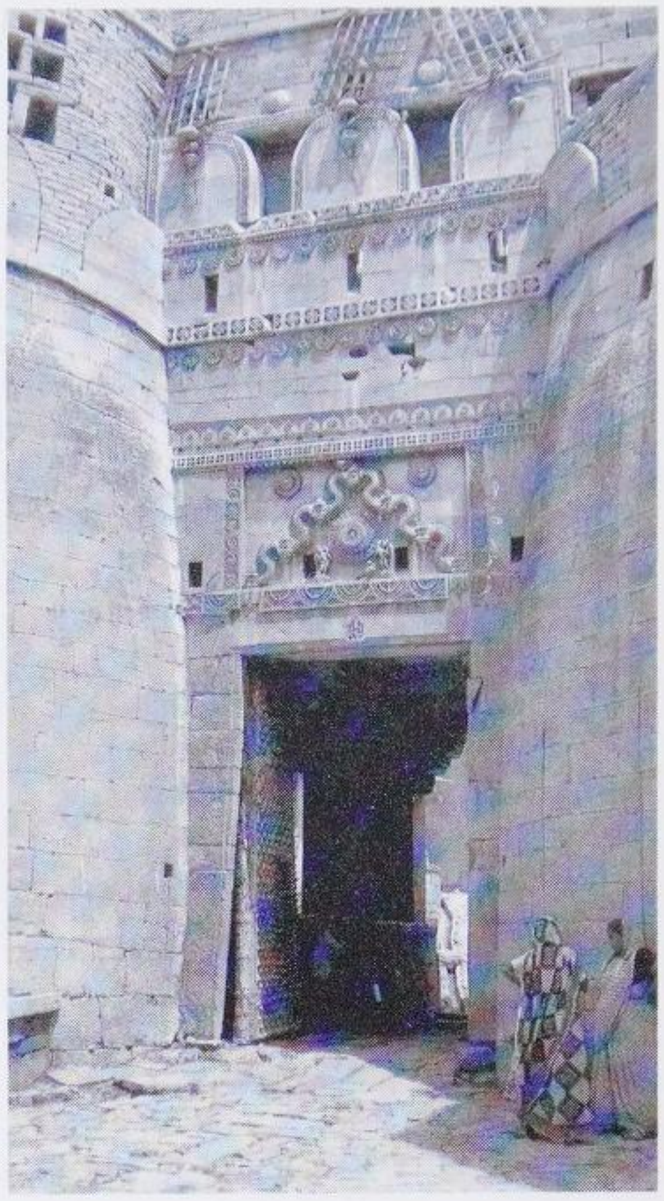
The heaviness described is somewhat relieved by the finely carved decorations and the shadows they create. This combination of heavy form and fine detail is common to all of the earlier buildings of Jaisalmer. It is particularly marked, for example, in the Suraj Pol, originally the outer, now the second gate of the ascent ramp, built by Bhim Singh in 1594 [153]. Its powerful bastions are not softened by decoration, but over the lintel are carved mouldings. The decoration of the Suraj

Pol rather resembles the traditional local embroidery, still produced in Jaisalmer, in being made up of strips of design which fail to relate in a coherent scheme.

The same combination of heavy form and fine detail is found in the pleasure palace at Amar Sagar, a few miles to the west of Jaisalmer [154]. This palace was built by Maharawal Amar Singh (1661–1703) on the *bund* of an artificial lake. It is a two-storeyed building, informally arranged around a courtyard, with an extensive formal garden adjoining. The large expanses of masonry – the palace walls and the *bund* itself – are relieved by the delicate *jarokhas* and the *bangaldar* roofs of the *chattris*.

In later buildings the decoration is greatly proliferated and fewer expanses of masonry remain; indeed the heaviness gives way to a sometimes choking richness [*xv*]. Some later additions onto the *mardana*, the Moti Mahal and the Gaj Vilas [237], exemplify this later phase of the style. The change was the major stylistic development to take place in Jaisalmer. It evidently occurred at some time between the building of Amar Sagar at the end of the seventeenth century, and the building of the *mardana* extensions at the beginning of the nineteenth century: that is to say, it occurred in the course of the eighteenth century. It is of some assistance in the dating of unattributed buildings: in the light of it, the principal parts of the *garh* palace clearly belong among the earlier Jaisalmer buildings.

In addition to the palaces, Jaisalmer has an unusually large number of fine *havelis*. In other Rajput capitals the houses of merchants and other classes have survived, but nowhere so unaltered as in Jaisalmer. Both the fort and the *taleti* (the district of the town outside the fort walls) are full of such houses. They are of various sizes and dates, and were built by people of various social levels; but in design most of them follow a common formula [155]. The typical *haveli* is built around one or two courtyards, and stands on a plinth to raise it above the level of the

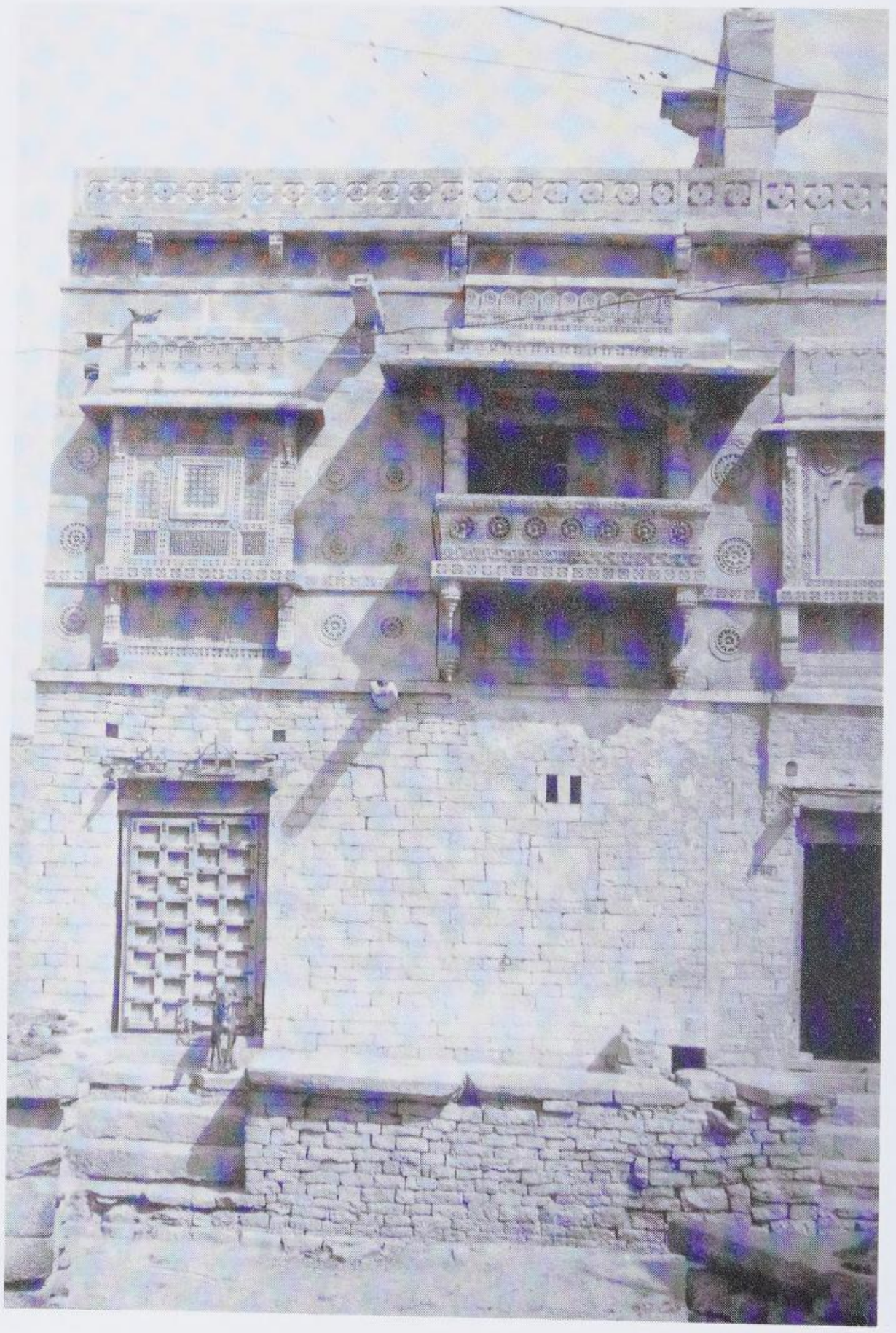


153. Jaisalmer; the Suraj Pol (1594)

152. Jaisalmer Fort Palace; the western part of the *mardana* with the ceremonial steps

154. Jaisalmer; Amar Sagar (1661–1703)

155. Jaisalmer; a *haveli* in the fort (16th century)



dusty street. Its carved wooden door is flanked at the level of the lintel by small sculpted horse-heads, or *todiyas*, but the lower storey of the street facade is otherwise plain. The upper storey has one or more *jarokhas*, and these may be open or enclosed by *jalis*. A very shallow form of balcony is often found; it consists of a *jali* screen supported on corbels less than a foot from the house wall – balconies of this form are also occasionally found on the palaces. The *jarokhas* and *jalis* are always elaborately carved, again creating a contrast with the plain walls. But in all the richness and apparent diversity, certain standard forms and embellishments are found, suggesting a copy-book approach.

Even among the desert capitals, Jaisalmer is situated in the most inhospitable terrain, and it depended for its income less on agriculture than on its position on the trade route between India and Afghanistan. The foreign contact surprisingly had no stylistic effect on Jaisalmer's architecture; but the city's trading importance meant that it had an especially wealthy merchant class, and these merchants built exceptionally elaborate *havelis*. The best of these, together with some other *havelis* built by *diwans*, and the last palace buildings, belong to the early decades of the nineteenth century; they are considered in Chapter Eleven.

Bikaner

Exactly a century after the founding of Bikaner, Raja Rai Singh (1571–1611), finding Bika's original fort too small, began a new and larger one. Rai Singh's fort, Junagarh, was built rapidly between 1588 and 1593, but the immense palace range which it contains was built over the period of more than three hundred years between Rai Singh's reign and the early twentieth century.

This palace range stands on an east-west axis, with a large open space in front of its north facade. The Suraj Pol, which gives access to the space, is the starting point of the palace both physically and historically, for it was built by Rai Singh in 1593 [156]. Although its opening is a structural pointed arch, it is otherwise no more advanced in style than the gate of the same name and about the same date at Jaisalmer [153]; with its simple trabeate *jarokhas* and gallery it is a powerful composition. The gallery served as a *nakkar khana*; that is, a drum house from which

156. Bikaner Palace; the Suraj Pol, from within (1593)

157. Bikaner Palace; part of the north range of Karan Mahal Chowk, with the Lal Niwas on the middle storey (c. 1595)

musicians announced the arrival or departure of the raja. The Suraj Pol differs from most of the palace buildings in being built of yellow, rather than the local red sandstone; it is alleged that the local mines were not discovered until late in Rai Singh's reign, and that the stone for the earliest palace buildings was therefore imported from Jaisalmer.[7]

Within the palace itself, the oldest apartment (probably also by Rai Singh) is the Lal Niwas, in the north range of the Karan Mahal Chowk [157]. This room is of unusual shape and proportions: the ceiling seems low in relation to the great length of the room, and at its west and east ends the room widens abruptly towards the south. It is on an upper storey, and the projecting portions are supported on columns; in front of the central portion of the room other columns rise the full height of the two storeys. The whole arrangement is reflected on the opposite side

158. Bikaner Palace; the Lal Niwas (c. 1595)

of the *chowk*. The very tall columns, of octagonal section, are used to great effect and are peculiar to Bikaner. They may have been a common feature in early parts of the palace which are now lost: columns not identical to these but like them, feature in a seventeenth-century miniature painting from Bikaner.[8]

Inside the Lal Niwas every surface is richly painted with stylized, regularly arranged floral motifs, predominantly in red and gold on a white ground [158]. The main openings are fitted with lacquered doors; such doors are found in other Rajput palaces but in especial profusion in the Bikaner palace. The balconies overlooking the *chowk*, to the south, are fitted with *jalis* – an example of the use of *jalis* in a room of the *mardana*.

What most gives this room its unusual appearance is the absence of free-standing columns supporting the ceiling. It is for this reason that the room has to be narrow: without support a wider span was not possible. The idea, no doubt, was to create an uninterrupted space – perhaps so that it could be used as a *darbar* hall – but the result does not satisfy that intention, as the space, though certainly uninterrupted, is small.

The needs of a *darbar* hall are better satisfied by the next major apartment of the palace to be built: the Karan Mahal, on the opposite side of the *chowk*, built by Raja Karan Singh (1631–69) [15].[9] Here, the ceiling is supported by a continuous arcade of cusped arches over balustered and fluted columns. The columns imitate Shah Jahani architecture, but the general arrangement has a simple elegance not found in that emperor's buildings. The hall is open to the *chowk*, but screened from it by a double arcade; thus making it both open to the air and seemingly enclosed. On the side walls is a blind arcade with pilasters carved in relief, echoing the structural arcade. An elaborate dado interrupts the lower parts of the pilasters, so rendering them meaningless and destroying the illusion that they might be of structural use. This dado and the rich decoration of the ceiling are later additions, dating from the reign of Maharaja Anup Singh (1669–98).[10]

Anup Singh's more important contribution to the palace is the Anup Mahal Chowk and its ranges, at the west end of the palace [2]. The upper storeys of the ranges served as a *zenana* and their facades are decorated with a great profusion of *jarokhas*, all filled with *jali* screens and mostly capped by *bangaldar* eaves. The arrangement of the *jarokhas* on all but one of the ranges is symmetrical, but the effect is one of richness and confusion rather than order. The whole scheme is painted white, making it appear as if carved from plaster though in fact it is of stone; it was customary to whitewash the *zenana* for a wedding.

The ground storey of the west range is the Anup Mahal itself [46]. This room has a *gaddi* recess in the back wall and is a *diwan-i-khas* (the Karan Mahal is the *diwan-i-am*). The fantastically sumptuous interior decoration – with plaster mouldings, red and gold paint, mirror-work and inlaid coloured glass – is a late eighteenth-century addition by Raja Surat Singh (1787–1828). The ground storey of the north range of the *chowk* consists of two rooms known as the Badal Mahal. Each of the rooms has a *gaddi* recess like that in the Anup Mahal, and a canopy-form ceiling like that of the Diwan-i-Am of the Amber palace. Opposite the Badal Mahal, in the south range, is the Cutcherry, or judicial court.

The most lavish of the apartments of the palace was added in the mid-eighteenth century by Maharaja Gaj Singh (1745–87). Situated above the Karan Mahal, this is the Gaj Mandir, a suite of rooms for private royal use. It consists of five chambers: a central one surrounded by four others. The floor of the central chamber is raised some three feet above the level of the outer chambers, and it is reached only by means of a short flight of steps from one of them. The outer chambers communicate with each other through doors, and with the central chamber through windows; however, because of the central chamber's raised floor one can see into it but not

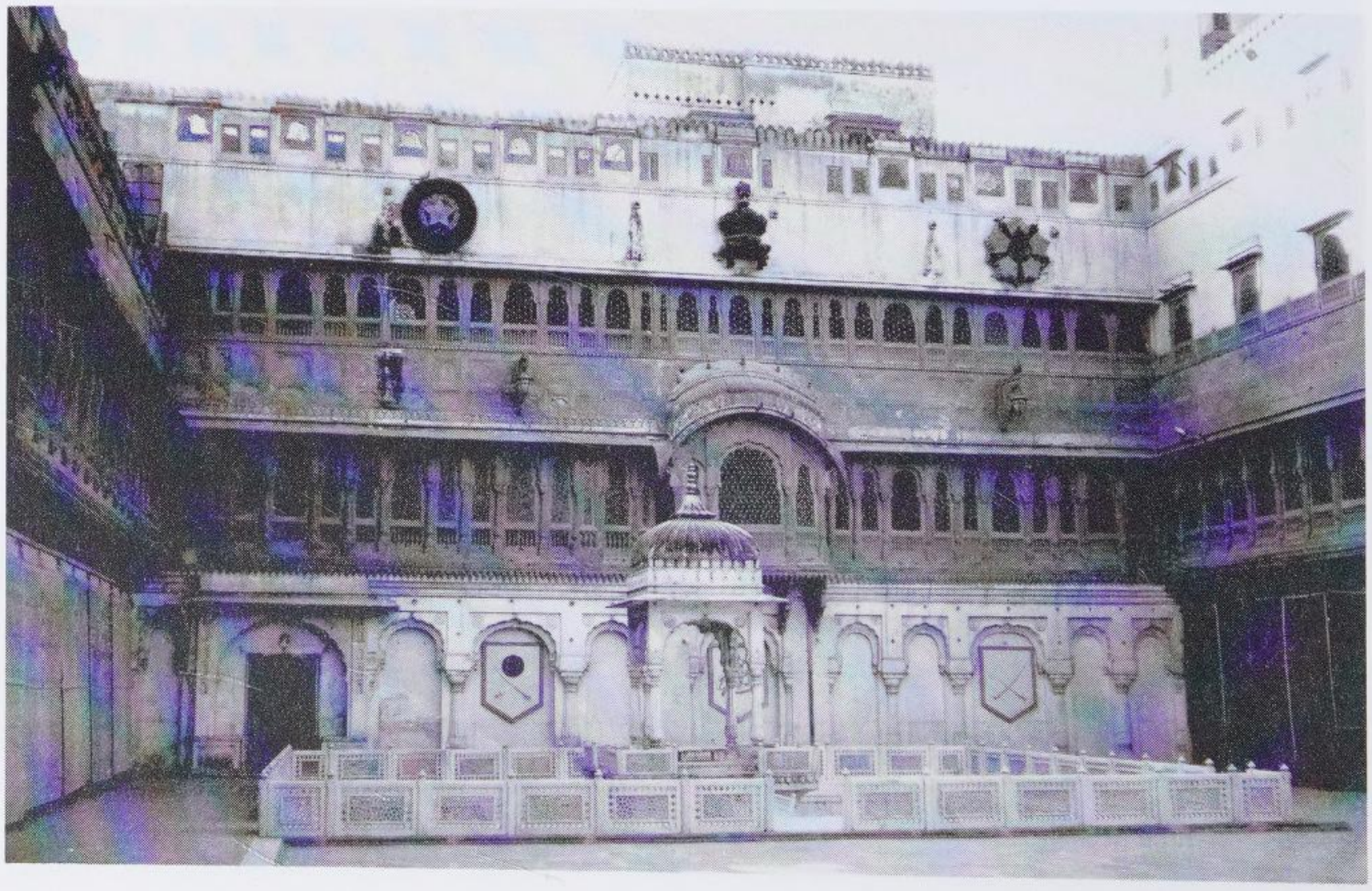
159. Bikaner Palace; the *sheesh mahal* in the Gaj Mandir (1745–87)

pass into it from any of the outer chambers (except the one provided with steps). Indeed one can see through the whole apartment, but the central raised floor teases us, by preventing us from reaching parts that we can see.

In addition to these chambers, a narrow corridor passes the suite on the south side and forms a projection in the south front of the palace. All the chambers of the suite are small and richly decorated, especially the southernmost one (next to the corridor) which is a *sheesh mahal* [159]. The central chamber is a bedroom; all its openings are fitted with lacquered doors which are decorated with scenes from the Krishna-Lila (Krishna playing with the *gopis*). The corridor has *jali* screens with the holes filled with coloured glass. Indeed, every available decorative technique is employed, and it is only the small scale which ensures that the Gaj Mandir is bijou and not simply vulgar.

In front of the Gaj Mandir is a high-level *chowk* which overlooks the Karan

160. Bikaner Palace; the west range of Karan Mahal Chowk (late 18th century)



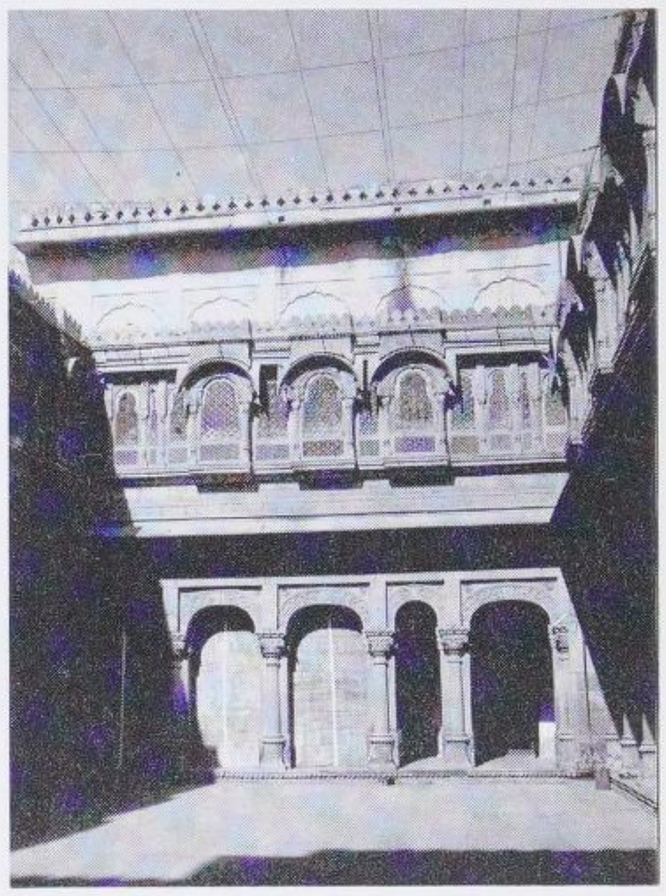
Mahal Chowk; its sides are protected by galleries of small cusped arches. Being small and repetitive, they anticipate the fussy miniaturism which characterizes the extensive additions to the palace made probably in the late eighteenth century. These additions include the ranges surrounding Vikram Vilas Chowk, the upper storeys of the west range of Karan Mahal Chowk, and the unification of the north front of the palace [34, 160, 161]. In all of these parts the familiar forms are reduced in size and repeated relentlessly; galleries and balconies are deprived of their depth and power, and become monotonous decoration. This is typical of the more widespread alteration in the Rajput style which occurred after the middle of the eighteenth century: it had always included richly decorated forms, but now the forms themselves became decoration.

Even after the eighteenth century, further additions were made to the Bikaner palace. Maharaja Dungar Singh (1827–87) added the Chatra Niwas, a small hut with a pitched roof, situated on top of the Gaj Mandir where it catches the breeze. Inside, the walls of the Chatra Niwas are decorated with English plates embedded in the plaster; the transfer designs on these plates are adapted from the series of prints, *Oriental Field Sports*, designed by Samuel Howitt and published in London between 1805 and 1807. Like the Dutch tiles in the Badi Chatur Shali of the Udaipur palace, these plates suggest a groping for novelty in a period of exhausted inspiration.

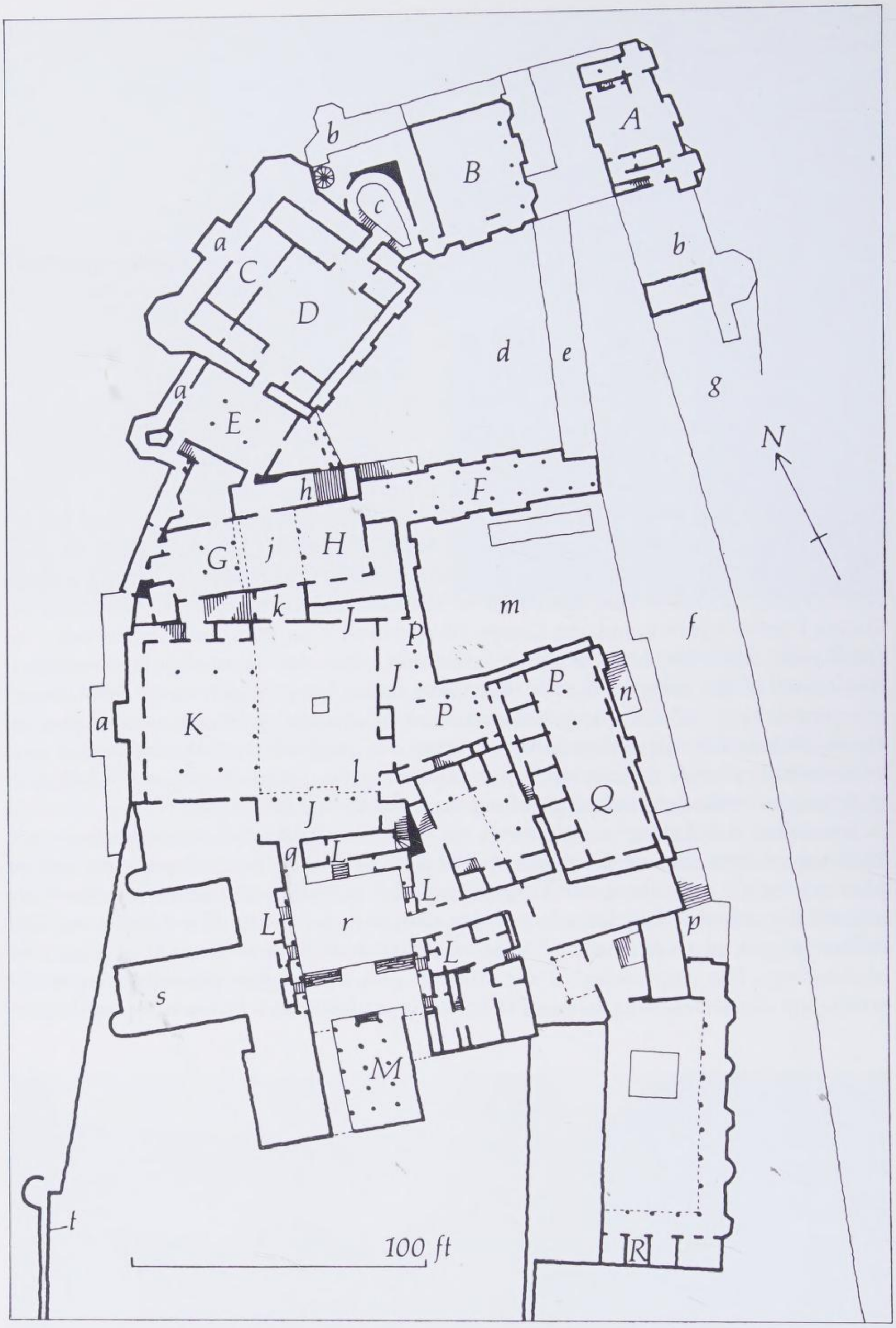
Later still, the famous First World War veteran, Maharaja Sir Ganga Singh (1887–1944), added a vast extension at the east end of the palace, including the Ganga Niwas Chowk and the Ganga Niwas itself – an enormous *darbar* hall.[11] In these parts the style does take a new direction, but the innovation is not Rajput: it consists of the introduction of European technology (which made possible the impressive span of the Ganga Niwas), and of classical proportions and classical forms such as the round columns and arches of Ganga Niwas Chowk [162]. About contemporary with these additions is another great range of palaces, standing at right angles to the original range, along the eastern edge of the fort.

Searching in Bikaner, as elsewhere, for evidence of Mughal cultural supremacy, Hermann Goetz says of the palace as a whole that its 'general disposition' and its plan are 'taken over from the Mughal imperial castles'[12] – an idea which has been echoed by others.[13] In particular, Goetz cites the proximity of the fort's entrance to the palaces as an example of Mughal influence.[14] This assessment is somewhat misleading. The disposition of the Bikaner palace is in fact typically Rajput: the palace is a single, continuous mass of building, rather than a group of isolated struc-

162. Bikaner Palace; the north range of Ganga Niwas Chowk (c. 1900)

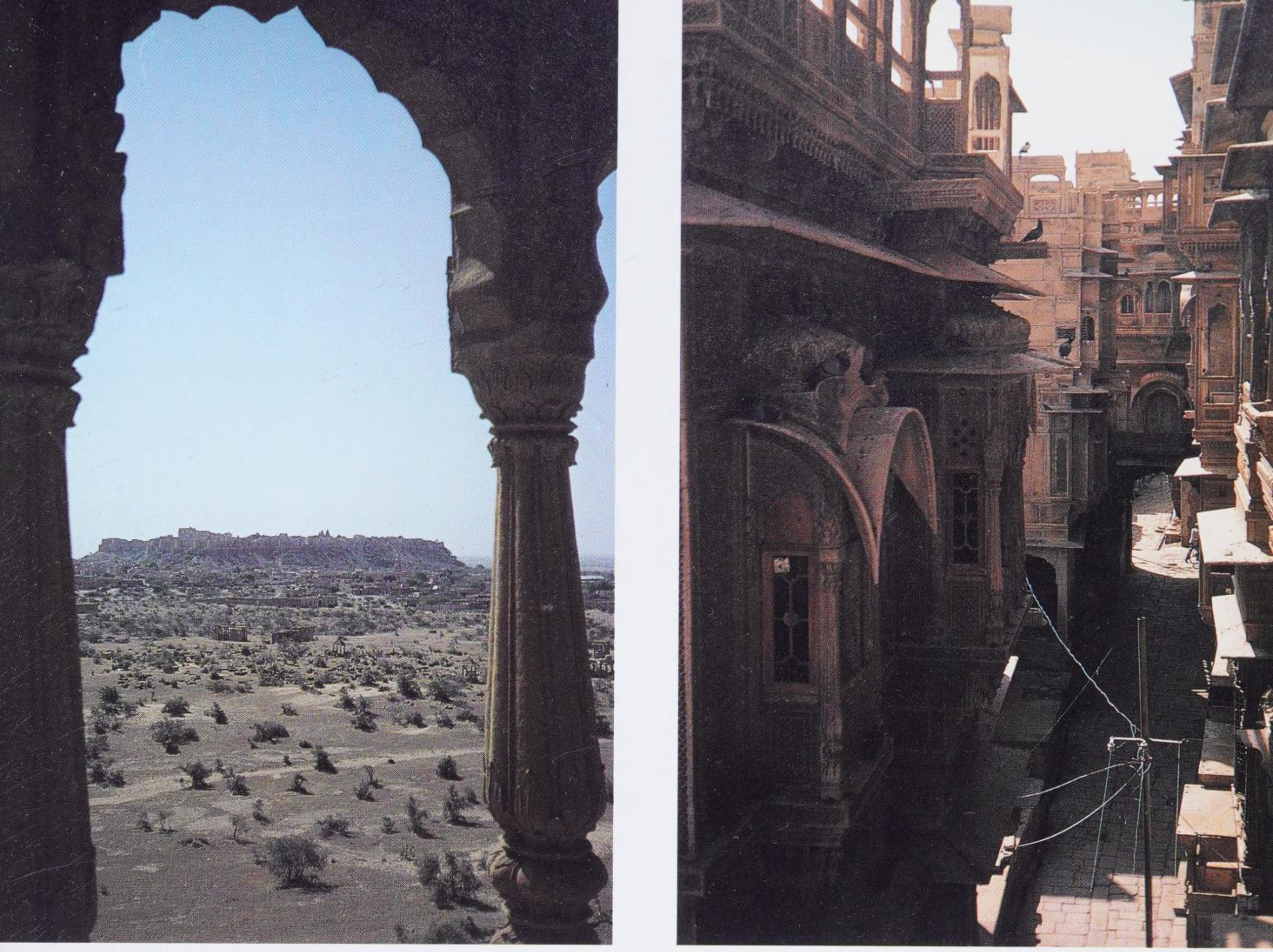


161. Bikaner Palace; the north front (late 18th century)



163. Jodhur Fort Palace (begun 1459, surviving apartments from c. 1640); a plan at the level of Moti Mahal Chowk: *A* – Fateh Mahal; *B* – Phul Mahal (with Sileh Khana below); *C* – Sheesh Mahal; *D* – Umaid Vilas (with Daulat Khana below); *E* – Sardar Vilas (with Takhat Vilas above); *F* – Jhanki Mahal; *G* – Khabka Mahal (Dipak Mahal); *H* – Khabka Mahal (Chandan Mahal); *J* – Moti Vilas ranges; *K* – Moti Mahal; *L* – old *zenana* ranges; *M* – open columned hall; *P* – further *zenana* ranges; *Q* – modern structure filling an original *chowk*; *R* – temple; *a* – long balcony; *b* – terrace; *c* – modern stair; *d* – (void over) Daulat Khana Chowk; *e* – (roof of) a double arcade overlooking *f* – approach ramp (at low level); *g* – (void over) a broad rampart; *h* – Mardana Deodhi; *j* – Khabka Mahal Chowk; *k* – Khasa Deodhi; *l* – Moti Mahal Chowk; *m* – (void over) Singar Choki Chowk; *n* – Suraj Pol; *p* – outer Zenana Deodhi; *q* – inner Zenana Deodhi; *r* – Zenana Chowk; *s* – modern extensions; *t* – mosque wall

tures on the Mughal pattern. The original parts of the palace are situated in the centre of the fort, as recommended by the fifteenth-century Rajput theorist, Mandan;[15] and it is only the modern parts which are located close to the fort's entrance. And such a proximity is not in any case an especially Mughal arrangement: it is not found, for example, in either of the Mughal forts of Delhi and Agra, though it is found in some other Rajput capitals, notably Gwalior, Jaisalmer and Jodhpur.



xiv (left). Jaisalmer Fort (founded 12th century)

xv. Jaisalmer; Patua ki Haveli (c. 1805)

JODHPUR

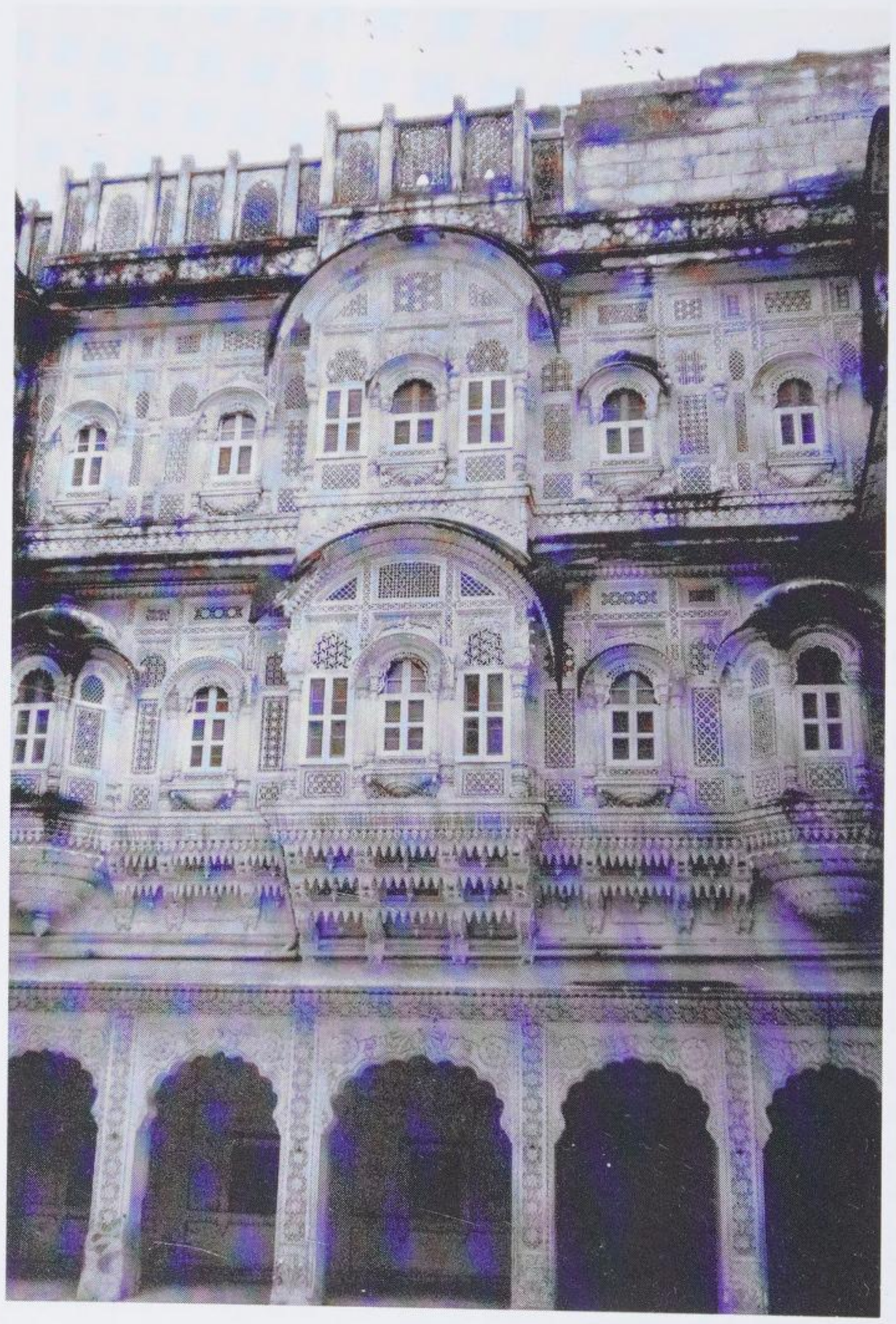
The duties of imperial service caused many of the Rajput rajas and their male relations to spend long periods away from their capitals. This circumstance is reflected in some of the palaces, which contain more accommodation for women than for men. The palace of Amber, for example, in its completed form, has a *mardana* which comprises two courts, but these contain less actual accommodation than the *zenana*'s single court. Such an imbalance is especially pronounced in the *garh* palace of Jodhpur, of which about two thirds is a *zenana* [163].

A major court of the Jodhpur *zenana* is Moti Mahal Chowk. The north, east and south ranges of this court (which might together conveniently be called the Moti Vilas)[16] are similar to the ranges of the Anup Mahal Chowk of the Bikaner palace [2], with numerous *jarokhas* filled with *jali* screens and capped by *bangaldar* eaves, the whole scheme carved from sandstone and painted white [164]. The principal difference from the Bikaner court is that here not only the *jarokhas* but the entire facade of the upper storeys is corbelled out, to overhang the supporting ground storey. The *jarokhas* extend further from the projecting facade, but the result does not appear precarious; the profusion of *jalis* gives the facade rather the appearance of a piece of hanging lace.

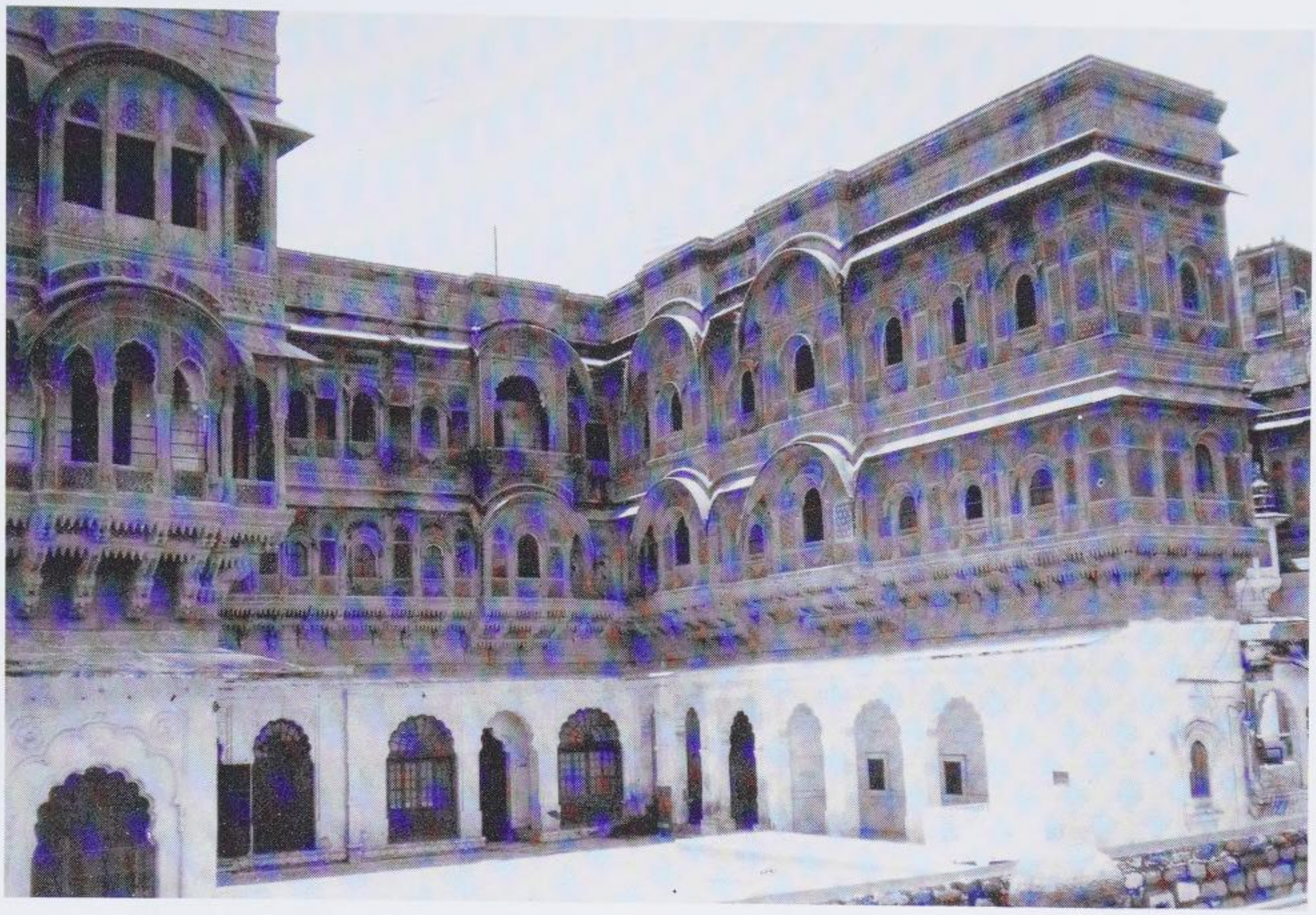
It is indeed inessential to the structure: the load-bearing task of the wall is performed within each range by an arcade, standing in the same plane as the arcade

of the lower, supporting storey. The resulting narrow gallery between the arcade and the corbelled facade – a narrow strip along the edge of each room – is a new feature, and peculiar to the Jodhpur *zenana*. Another concomitant feature is the fringe of tassels carved in stone, which decorates the corbels on the exterior. This fringe is especially rich under the *jarokhas*, the furthest projecting parts. Each range also has a tall balustrade protecting the roof terrace; such balustrades are found in the palaces of Bikaner and Jaisalmer too, but they are particularly common in the Jodhpur palace.

The Moti Vilas can be dated, on historical and stylistic grounds, to the reign of Maharaja Jaswant Singh (1638–78). The key to the dating of many parts of the palace is the thirty-year Mughal occupation following his reign (1678–1707). Jaswant Singh was an unreliable servant of the empire. Though he had entered the imperial service at the age of fifteen, he was always unpredictable, especially in the Mughal civil war of 1658, during which he repeatedly changed sides. When he died without an heir, Aurangzeb annexed Jodhpur to save himself further trouble.[17] This naturally halted building operations in the fort, except for the construction of an incomplete mosque.[18] By good fortune, Jaswant Singh had a posthumous son, Ajit, and when Aurangzeb died Ajit recovered his patrimony. None of the palace apartments, therefore, date from the last decades of the seventeenth century; but a great deal was



164. Jodhpur Fort Palace: the south range of Moti Mahal Chowk (1670s)



165. Jodhpur Fort Palace; ranges around Singar Choki Chowk including (right) the Jhanki Mahal (mostly 1670s with – far left – early 18th-century additions)

added by Ajit Singh early in the eighteenth. The Moti Vilas, being stylistically similar to the Anup Mahal Chowk at Bikaner, may be taken to be about contemporary; it must therefore predate the Mughal invasion, and belong to the 1670s.

Adjoining the Moti Vilas to the south is another *zenana* court which seems to be slightly older [163]. This primacy is suggested largely by the high plinth on which the cloister of each range is raised. Such plinths are not found in the rest of the palace; they are taken from the domestic architecture of the city, but were presumably soon found to be unnecessary in the palace, where there is no dusty street from which they could afford protection – the cloisters alone are sufficient to afford protection from the monsoon rains. Thus the Moti Vilas has cloisters, but no plinths. Furthermore, the decorative carving in the southern court is of a higher quality [*xvii*] and this too suggests that it predates the Moti Vilas, for the general tendency in Jodhpur was for the carving to deteriorate in successive buildings. On the evidence of the plinths and the carving, then, the southern court can be dated to no later than the beginning of Jaswant Singh's reign (c. 1640).

The further parts of the Jodhpur *zenana* cover an extensive area to the east of the two courts described, and include the ranges around Singar Choki Chowk [165]. In these parts, as in the oldest court, the decorative carving is not painted; here, the scheme is one of richly decorated, red sandstone upper storeys supported on a plainer, white-painted lower storey. The lower storey is quite distinct from the upper ones, having separate access, and its rooms do not form part of the *zenana*: most of them are stores. The ranges around Singar Choki Chowk are only one room deep, allowing a greater circulation of air; the one apparently more solid block, to the south of the *chowk*, in fact originally consisted of narrow ranges enclosing an inner *chowk*, but this *chowk* has been filled in with modern structures, joining the whole into a single mass.

The facades of the upper storeys form a continuous perforated screen, through which the women could watch proceedings in Singar Choki Chowk. The proceedings included the annointing of new rajas, for which the marble throne in the *chowk* was employed. From its function as a women's viewing gallery, the range to the north of the *chowk* took its name, Jhanki Mahal (i.e. 'glimpse palace').

166 (left). Jodhpur Fort Palace; the north-west range of Daulat Khana Chowk, with the Daulat Khana below (1707–24)

167. Jodhpur Fort Palace; the east range of Khabka Mahal Chowk (1707–24)

It is evident from some of their structural details that the ranges around Singar Choki Chowk were built in two stages. The block to the south of the *chowk* is a later addition [163]: it is one storey higher than the other ranges, its string-courses relate badly to those of its neighbour, and other details collide rather than join. The neighbouring block (also on the south side of the *chowk* but to the west) has been raised to match the level of the newcomer, and its top parapet integrated into the new facade.

With the sequence of the ranges established, their dates can also be roughly fixed. To begin with, it may reasonably be assumed that all the ranges were built after the Moti Vilas, of which they properly form an annexe. The first stage of development – the building of the north, west and south-west ranges – may predate the Mughal occupation, and so belong to the closing years of Jaswant Singh's reign. But on the ground storey of the later, south-east block is found a distinctive feature which is the hallmark of the additions made to the palace immediately after the occupation, in the reign of Maharaja Ajit Singh (1707–24).

This hallmark is a new type of capital employed on piers, which is peculiar to Jodhpur [167]. It consists of a banded moulding at the top of the pier, and a scroll at the springing of the arch (the first foil of the arch is stilted, to avoid a cluttering of curves). It bears some resemblance to a classical Ionic capital, although if this is its source then the model has been misunderstood; being a somewhat two-dimensional version of an Ionic capital, it is perhaps derived from engravings depicting European buildings.

The appearance of these capitals on the supporting storey of the block to the south-east of Singar Choki Chowk shows that the second and later stage of the development of that area was executed under Ajit Singh. The dating of all the various parts of the *zenana* depends on such minor differences of detail as this, and on constructional details and the circumstances of Jodhpur's history. This reflects not only the absence of contemporary information about the buildings, but also the continuity of style between them which makes dating them so difficult. The arrangement of *jarokhas* (especially in pairs, one above the other) and the patterns of the *jalis* are indeed remarkably consistent from one part of the *zenana* to another.

Among the other buildings by Ajit Singh which have the pseudo-Ionic capitals are the two columned halls now known as the Daulat Khana [166] and the Sileh

xvi (facing). Jodhpur Fort Palace; the Sheesh Mahal (1707–24)

Khana. In the Daulat Khana, the capitals are used in conjunction with five-foil cusped arches. Originally, the main fronts of these halls were open arcades and so, being insufficiently secure, they could not have performed the functions which their present names imply; rather, they were *sabhas*. The metal rings fixed under the *chajja* of each of the halls, show that they were originally enclosed by suspended drapery – a practice common in all of the Rajput capitals and in the Mughal ones; this enabled a room to be at once shaded and airy, but somewhat obscured and flattened the architectural forms.

The pseudo-Ionic capitals are found too in the Khabka Mahal, a pair of rooms which face each other across a small *chowk* [167]. The name *khabka* (from the Persian *khwab* meaning 'sleep') denotes the use of these rooms as bedchambers. The Sardar Vilas again has the same capitals; the adjacent Umaid Vilas has more traditional lotus capitals, but the form of its arches (with five foils like those of the Daulat Khana) suggests that it too was built by Ajit Singh.

Also with pseudo-Ionic capitals is the hall on the west side of Moti Mahal Chowk – the Moti Mahal itself [168]. The common attribution of this hall to Sawai Raja Sur Singh (1595–1619)[19] is not tenable: quite apart from the capitals, the cusped arches have a maturity of form not found before Shah Jahan's buildings of the 1630s.

The position of the Moti Mahal, in more ways than one, is not sensitive. Its *chajja* fails to meet those of the flanking ranges, and the *jarokhas* of the storey above it obscure some of the *jalis* of those ranges; in short, the Moti Mahal is not integrated with but crashes into its neighbours. This bad joining is a sign of its being a latecomer to the court, as is also the poor construction of the storeys above it: they are weak imitations in plaster of the stone-carved range opposite. Since the *chowk* is of a regular shape and the other three ranges are of uniform design, it is probable that Ajit Singh had to demolish an original west range of the *chowk* in order to make space for the Moti Mahal.

A hall of the size and splendour of the Moti Mahal can only have served as a *diwan-i-am*, and this is the second aspect of its insensitivity, for it might well be

168. Jodhpur Fort Palace; the south-west corner of Moti Mahal Chowk (1670s) with the main front of the Moti Mahal (1707–24)

169 (right). Jodhpur Fort Palace; the Moti Mahal interior (1707–24)

asked what a *diwan-i-am* is doing in a court of the *zenana* [163]. However, the other ranges around the *chowk* – the Moti Vilas ranges – are all accessible from behind and from each other, so that they do not depend on the *chowk* as a point of access. It is possible, therefore, that the *chowk* itself became a part of the *mardana* along with the Moti Mahal, and the women would then have been able to watch proceedings in the *chowk* from the security of their own ranges overlooking it – just as they could overlook Singar Choki Chowk from the Jhanki Mahal, and just as the women of Udaipur could overlook Mor Chowk, in the *mardana* of their own palace, from the Nila Mahal.

For all its lack of tact, the Moti Mahal is a magnificent room, with a mirror-worked ceiling and the lustrous *chunam* covering all of the other interior surfaces [169]. Running around the walls, three feet above the floor, is a triple band of little niches; these accommodated oil lamps whose flames would have flickered on the polished surfaces. The fine but misplaced woodwork which fills the once open front of the hall, is a nineteenth-century addition.

Contained within the same block as the Daulat Khana and the Umaid Vilas, and therefore probably also by Ajit Singh (though it lacks the pseudo-Ionic capitals), is the Sheesh Mahal [*xvi*]. Despite its comparatively late date, it is a good example of a typical Rajput *sheesh mahal*, very different from the Mughal-inspired one in the Amber palace [16]: the mirror-work includes large, regular pieces, like those in the Lal Niwas of the Bikaner palace, rather than an intricate mosaic of tiny fragments; and superimposed over the mirror-work are figural designs in plaster, brightly painted. The room gives access to a long, cantilevered balcony; the Jodhpur *mardana* has several long balconies of this type – as opposed to small, cradle balconies – but they are otherwise scarce in Rajput architecture. The Sheesh Mahal's balcony overlooks the fort wall [170], and is corbelled out from massive round towers with heavy string-courses, forming a composition reminiscent of the east front of the Man Mandir at Gwalior [11].

The Sheesh Mahal and most of the other buildings by Ajit Singh together amount to an extensive addition to the *mardana*. Apart from these additions to the *garh* palace, Ajit Singh also built a pleasure palace at Mandore, the former capital of the state. It is a *zenana*, consisting of ranges around a small formal garden, and the bizarre Ek Thamba Mahal [171]. It is approached through the impressive Ajit Pol, a gate which takes its name from its builder and which has the characteristic pseudo-Ionic capitals and five-foil arches on its inner face, confirming the association between those forms and Ajit Singh's reign.

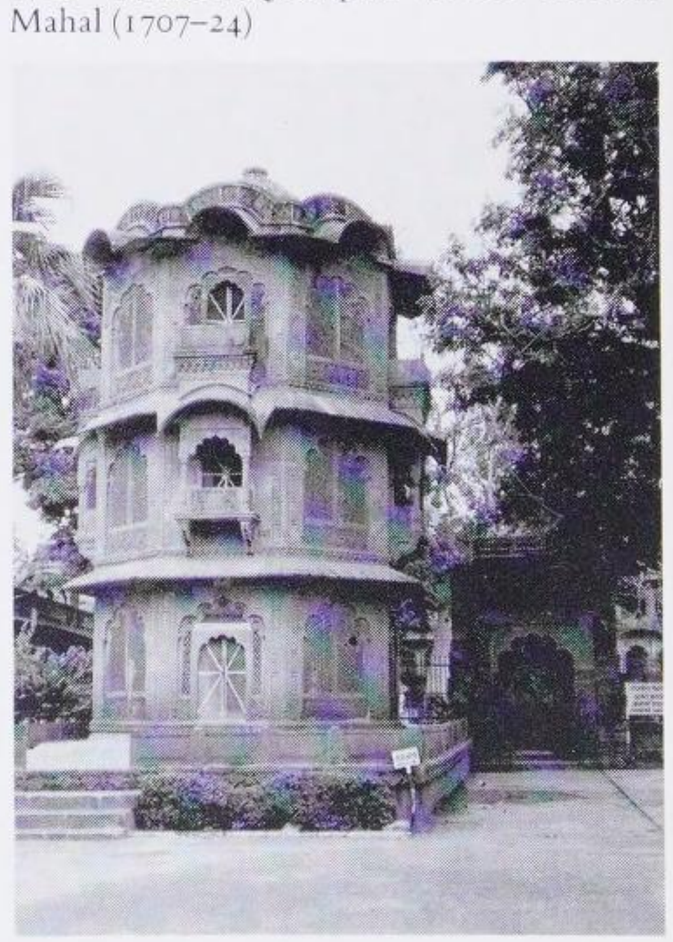
After the reign of Ajit Singh, Maharaja Abhai Singh (1724–49) added the Phul Mahal to the *garh* palace [163]. The stonework of this room includes *jali* screens, introduced for the first time into the *mardana* of the palace. In style it is similar to the stonework of the older buildings, but it is weaker: the carving is shallow and fails to achieve the rich effect of the earlier buildings. The murals in the room were added much later, in the reign of Maharaja Jaswant Singh II (1873–95) [172].

The slightly earlier decoration in the Takhat Vilas, a room added by Maharaja Takhat Singh (1843–73), is more traditional in style [38]. The surfaces are divided into sections, each with a brightly painted scene, and with not much concern about how the parts relate. The Phul Mahal's more harmonious overall scheme betrays a European influence. Both schemes, however, employ traditional subject matter: the Phul Mahal murals depict the Raga-Ragini (the thirty-six musical modes, which were a favourite source of inspiration for painting-cycles), and the Takhat Vilas murals depict dancing girls, scenes from the Krishna-Lila, and Dhola and Maru (a pair of legendary lovers who eloped on a camel). Less traditional in the Takhat Vilas are the Christmas-tree balls suspended from the ceiling.

The Takhat Vilas has a particularly spacious and open appearance, achieved by

170. Jodhpur Fort Palace; 18th-century balconies over the north fort wall

171. Mandore, Jodhpur; the Ek Thamba Mahal (1707–24)



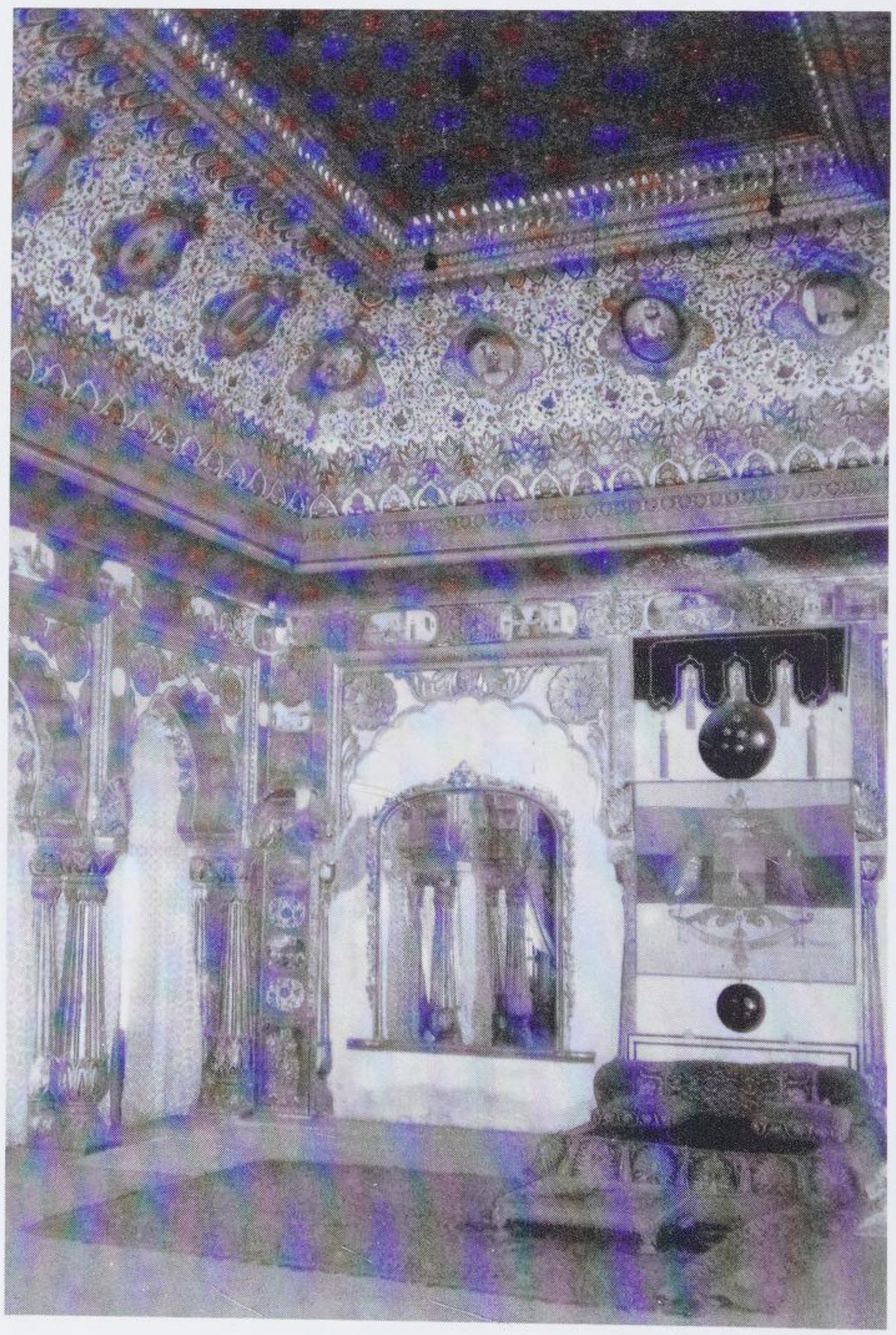
its unusual roof construction. Three types of ceiling are found in the palace as a whole, and the type used influences the character of the room. Much the most common is the ceiling supported by arcades, which interrupt the space of the room. A few rooms, such as the Sheesh Mahal and the Phul Mahal [172], have ceilings of the canopy form, though even with this type the size of the room is limited by the length of available stone roof-slabs. A few other rooms, like the Takhat Vilas, have ceilings supported by enormous wooden beams resting on corbels – an obvious solution to the problem of providing a large, uninterrupted space, but one which was slow to be adopted in an area lacking in trees.

The Jodhpur rajas built several subsidiary palaces. To begin with, there are three concubines' palaces which add further to the already extensive accommodation for women. One of these, as seen above, was built by Ajit Singh at Mandore. Another, the Chokelao Mahal, was built in the outwork of the fort probably in the late eighteenth century.[20] The arches around the *chowk* of this palace have the Jodhpur Ionic capitals, but now grotesquely exaggerated. The third concubines' palace is the Taleti Mahal, in the city. This appears to be the oldest surviving palace in Jodhpur: some of its *jarokhas* have temple columns – a feature not found in any surviving part of the *garh* palace [173]. The Taleti Mahal was therefore probably built in the early seventeenth century;[21] the pseudo-Ionic capitals in some parts, however, are a mark of Ajit Singh's additions to it.

Another subsidiary palace is the Fateh Mahal – a *kanwar pade ka mahal* attributed to Ajit Singh – which stands opposite the main parts of the *garh* palace, on the

173. Jodhpur; the Taleti Mahal (early 17th century, with later additions)

172. Jodhpur Fort Palace; the Phul Mahal (built 1724–49; decorated 1873–95)



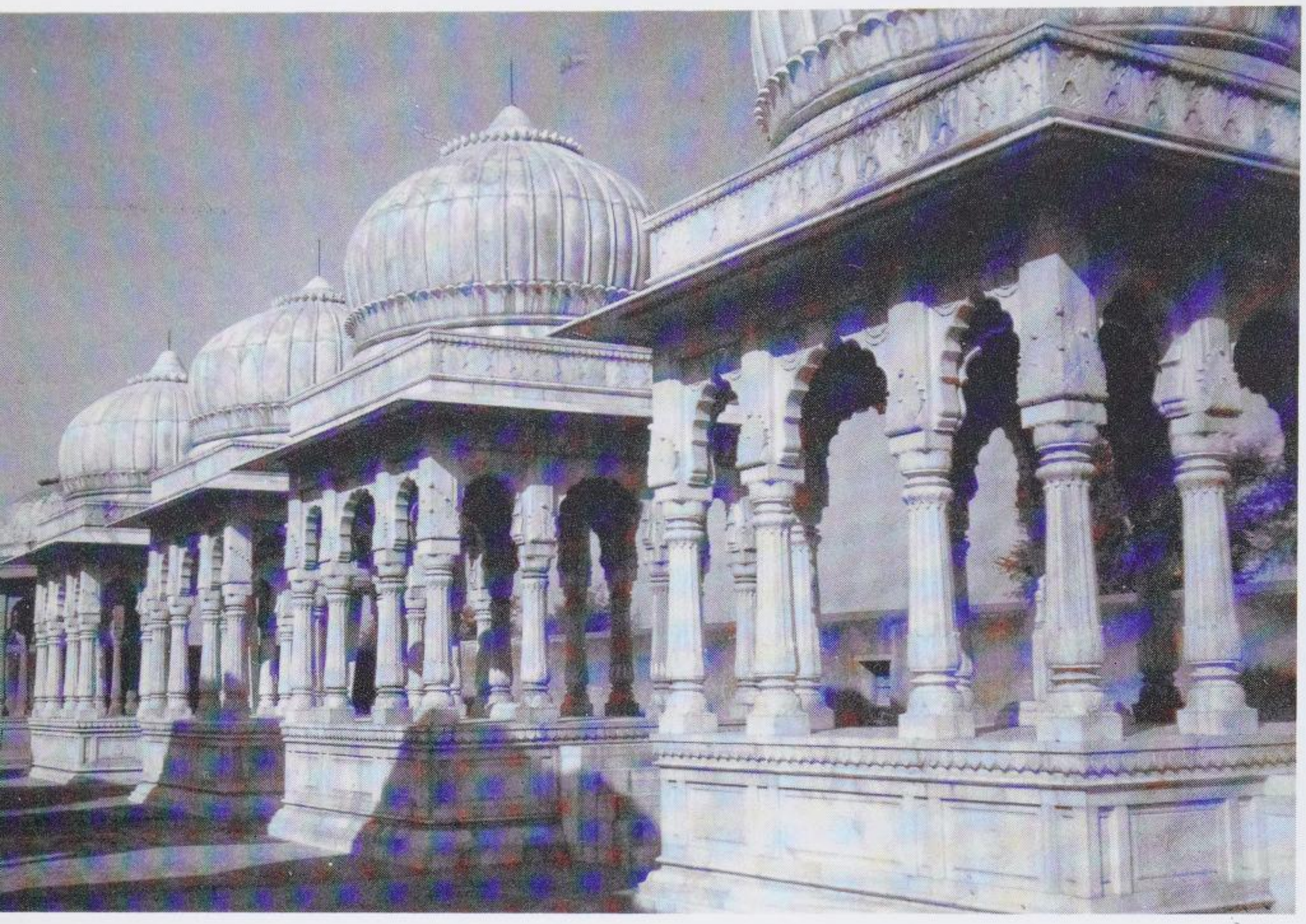
174. The pleasure palace at Bal Samand, Jodhpur (late 19th century)

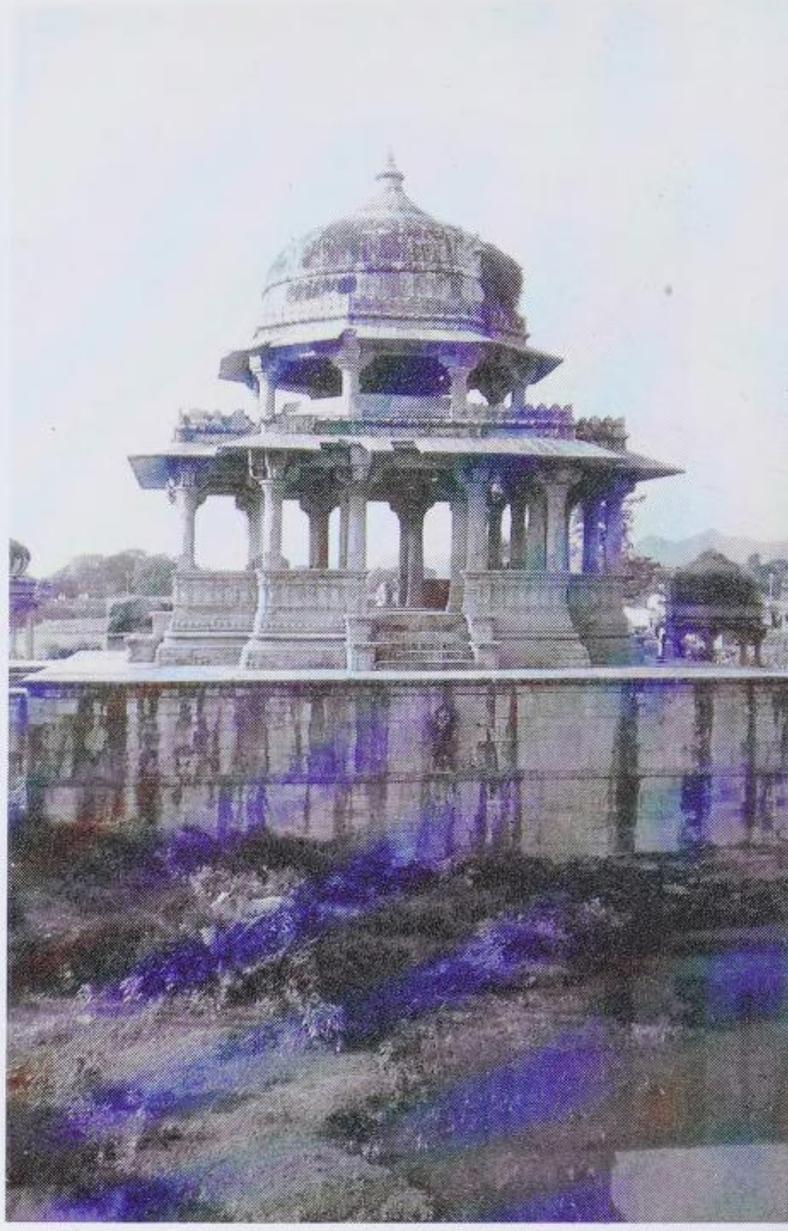
fort's eastern rampart. Much more recent is the pleasure palace built on the *bund* of the lake Bal Samand, outside Jodhpur [174]. The internal arrangement of this palace is purely European, with an Italian *cortile*, and the palace was clearly built in the late nineteenth century. But externally, its red sandstone facades, like those of the Fateh Mahal, are richly carved in the traditional manner – demonstrating how that technique persisted even when all the other original features of the style had been abandoned. This is perhaps not surprising, for the impulse to embellish lies at the heart of the Hindu tradition.

THE CENOTAPHS

Close to Ajit Singh's pleasure palace at the old capital, Mandore, is the *mahasati*, where the *devals* of past rajas were built on the sites of their funeral pyres. The Ranas of Udaipur similarly employed their ancestral home, Ahar, for this purpose. In the design of the *devals*, the Jodhpur Rathors followed a pattern different from that followed by most of the other clans. Commonly, a *deval* consists of a plinth surmounted by a *chattri*. The forms employed vary from one to another, according to date: a typical early *deval* has temple-style columns, is trabeate in construction and is surmounted by a stepped dome; but in the course of the seventeenth century this type was gradually replaced by one employing balustered and fluted columns, cusped arches, an onion dome, and sometimes even *bangaldar* eaves. In other words, the design of the typical *deval* developed in accordance with the contemporary stylistic development in the palaces. In addition they became progressively larger, with more columns, and more lavishly decorated – a trend no doubt encouraged by the splendour of the tombs built by the Mughals – but the same basic arrangement was maintained. Among the *devals* of this type are those at Bada Bagh outside Jaisalmer [7], those at Devi Kund outside Bikaner [175], and most of those at Ahar outside Udaipur.

Some of the *devals* at Ahar are more closely associated with temple architecture. The dome of the *deval* of Amar Singh I (d. 1620) [176], for example, is raised on a clerestory like that of the Jagdish temple in Udaipur. The group at Orchha follow



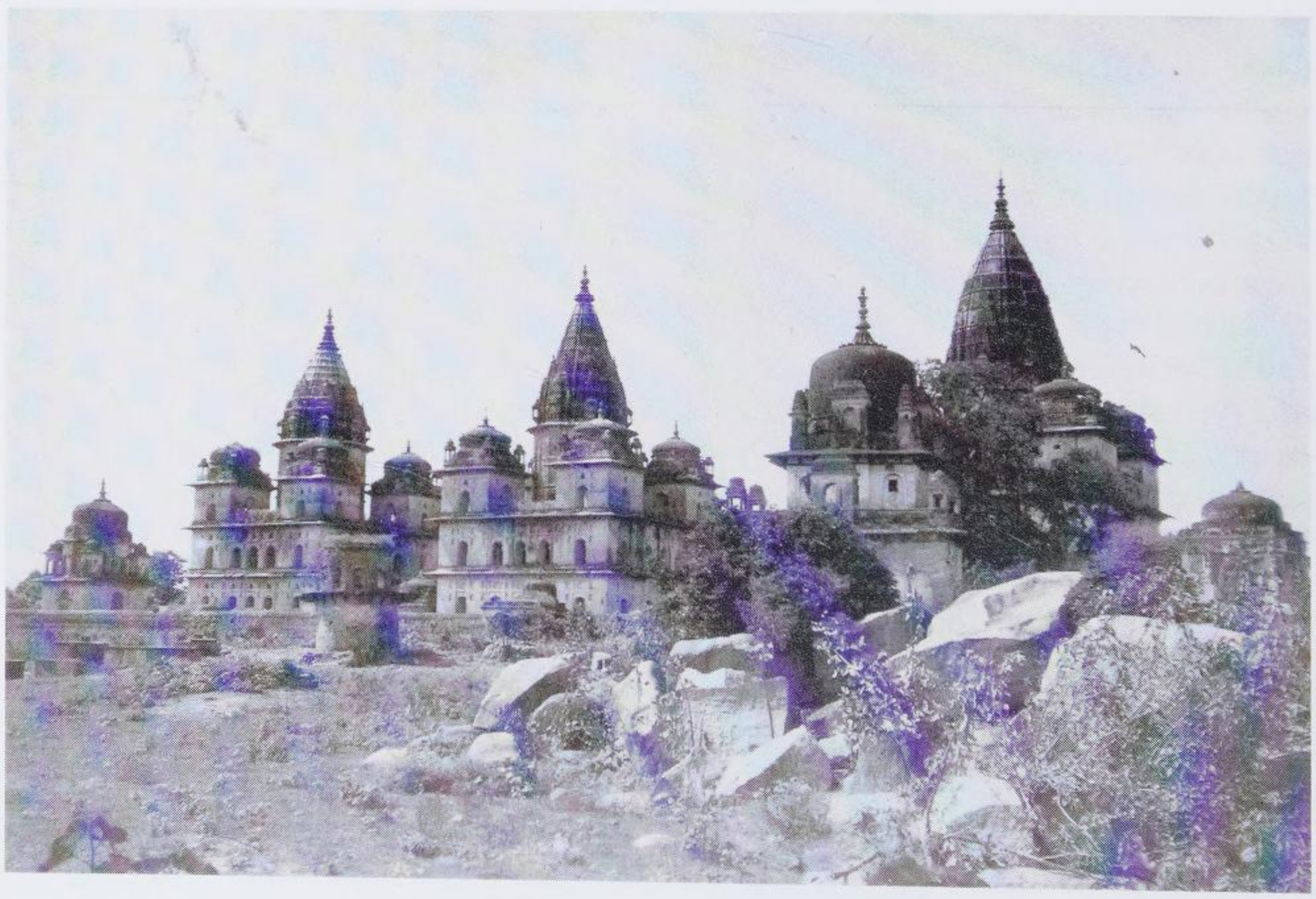


175. *Devals* at Devi Kund, Bikaner

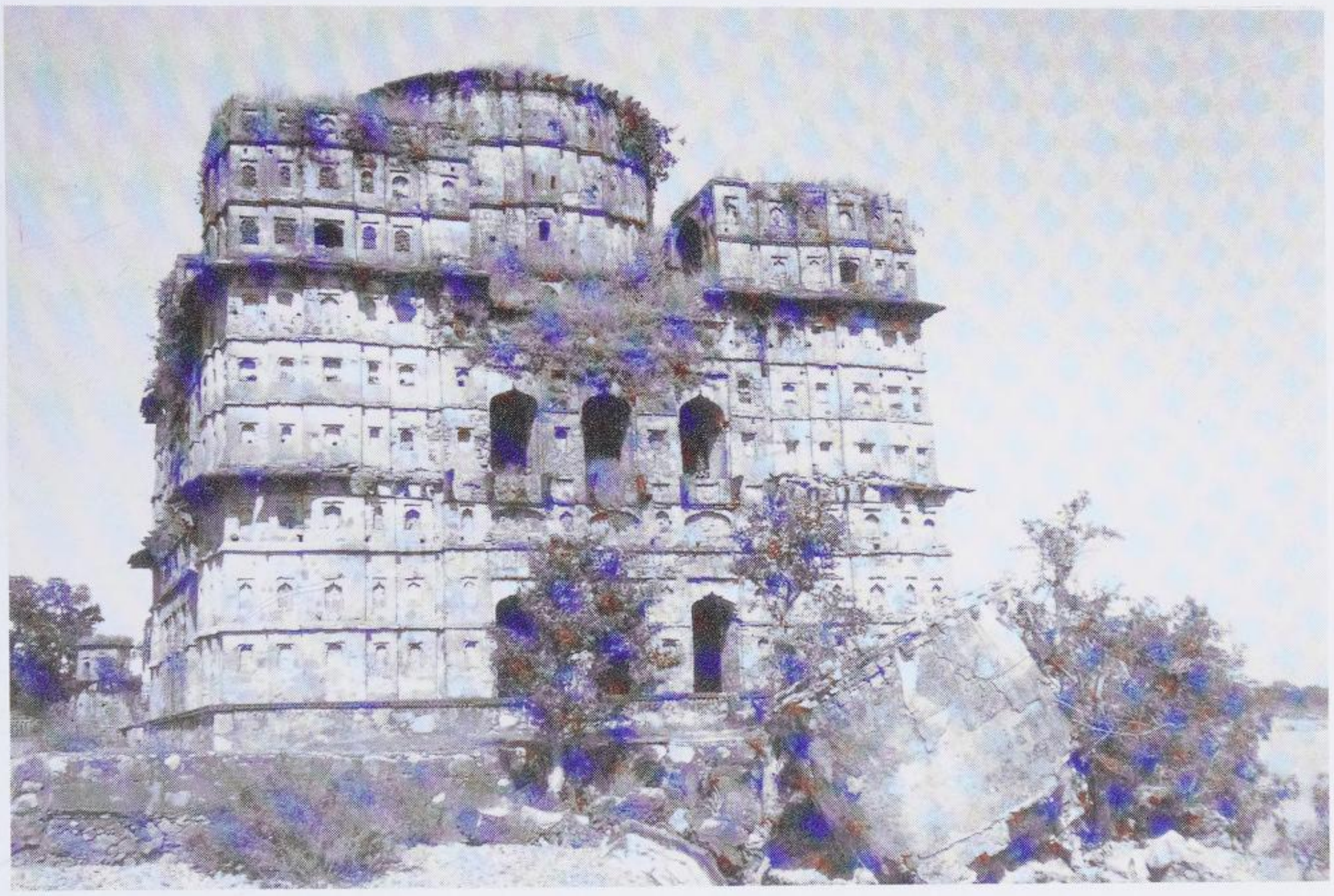
176 (right). Ahar, Udaipur; the *deval* of Amar Singh I (c. 1620)

a quite different pattern: each has a square plan and is heavily massed, like the Orchha palaces, and is surmounted by a temple *sikhara* [177]. The largest of the group, the *deval* of Bir Singh Deo (d. 1627), has lost its top; the assertion that it was originally crowned by a round dome rather than a *sikhara*[22] is improbable in view of the uniform design of the other *devals* and of the fragments which still litter the ground around it [178].

177. *Devals* at Orchha



To fall between the palace and temple traditions – as these Ahar and Orchha *devals* do – is appropriate enough for royal cenotaphs. Though not used for religious worship, they are quasi-religious buildings as they celebrate the dead rather than house the living. The *devals* of the Mandore group differ from all the others in being much closer to temple architecture; they are in fact imitations of the medieval temple form (the *garba griha* is left empty). The most splendid is that of Ajit Singh [179]. The *devals* of the ranis at Mandore, however, follow the standard Rajput pattern.



178. Orchha; the *deval* of Bir Singh Deo (c. 1627)

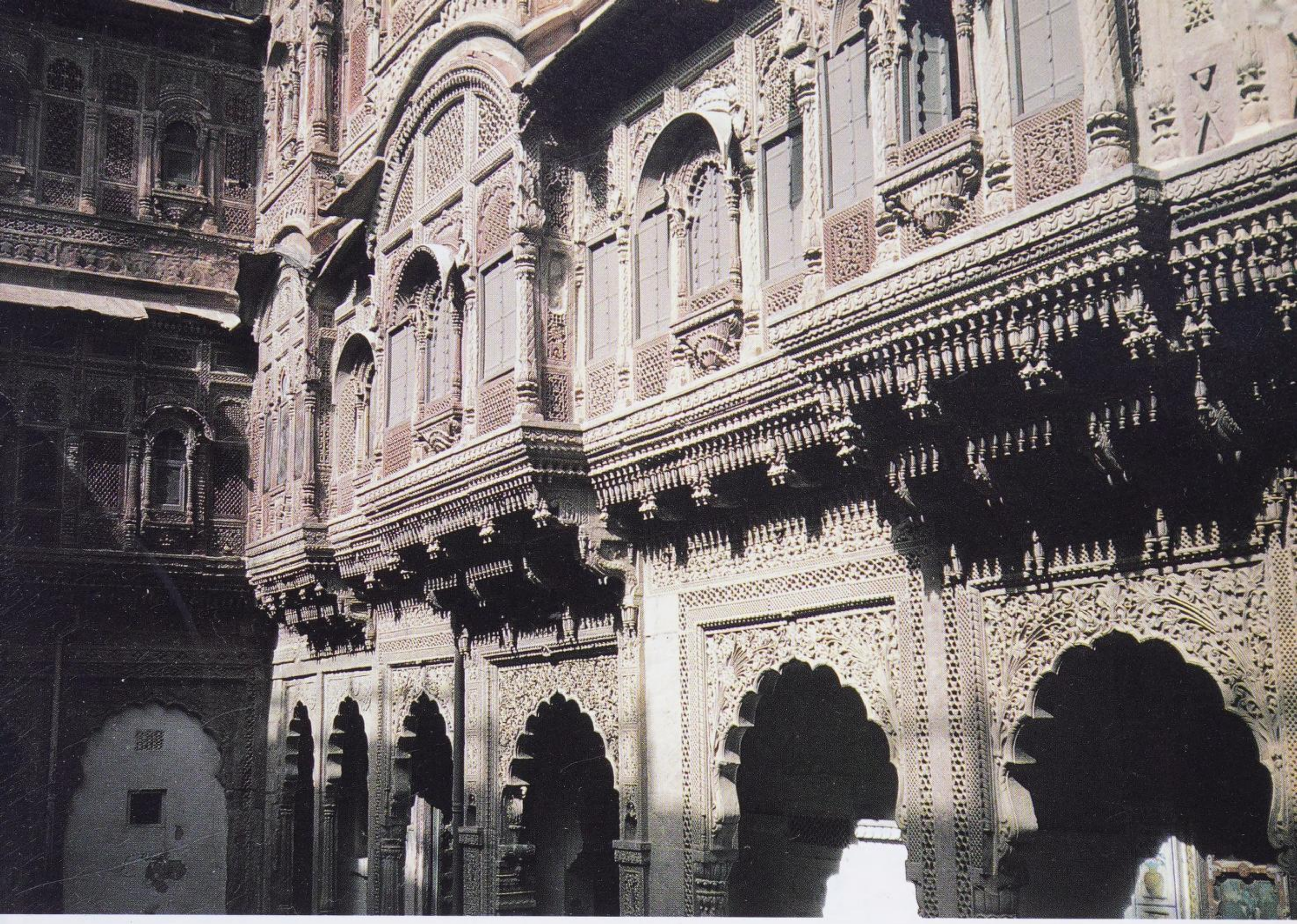
179. Mandore, Jodhpur; the *deval* of Ajit Singh (c. 1724)

Each of the upper storeys of the Jhanki Mahal, in the Jodhpur *garh* palace, consists of a single, long gallery [163]. The main space is defined by the arcades which run down the sides of the gallery and support the roof; but outside each arcade is a further narrow gallery, between the arcade and the corbelled wall. From the wall, broad balconies enclosed with *jali* screens project still further, and an arch thrown across the entrance to each balcony continues the line of the wall. So, from the inside, the room is seen to be constructed of a series of parallel planes – the arcades, the walls with their arched openings, and the *jali* screens enclosing the *jarokhas* [180]. One can pass through the first two of these planes, and see through all of them; and being penetrable, they suggest but do not enforce limits of space. There is consequently an uncertainty about the position of the wall: which plane should count? None is dominant. This effect is similar to effects achieved in English architecture in the work of Sir John Soane (1753–1837); in an Indian context, it may be defined as a highly developed and localized example of Rajput elusion.

The effect is repeated in other rooms of the Jodhpur palace, and a similar effect is achieved in the Lal Niwas in the Bikaner palace. There, the projecting balconies are as wide as the spaces between them, so that the wall of the room seems to alternate between two planes; and the strange, U-shaped plan of the room prevents it all being seen from a single viewpoint, and so compounds the uncertainty. The Cutcherry in the same palace consists of a series of extensions to itself: a columned hall gives access to a gallery which in turn leads to a long balcony. One wanders through the forest of columns, discovering the various parts, but the limits of their combined space remain elusive; one cannot be aware of all of the limits all of the time. This is the other aspect of elusion: the evading of our understanding not through ambiguity but through complexity.

In a more general way, this aspect of elusion is common to all of the desert palaces. Each is a complex and irregular collection of parts, and the relations between the parts cannot all be perceived at once. In the Jaisalmer palace, the internal irregularity is all the more surprising, being discovered after the comparatively regular external form. In a symmetrical building, however large, we can anticipate forms and

180. Jodhpur Fort Palace; a detail of the Jhanki Mahal, interior (1670s)



xvii. Jodhpur Fort Palace; the east range of the old *zenana chowk* (*c.* 1640)

relations. But as we move through these palaces our expectations are fruitless: awkward passages lead to broad, open courts; grand stairs lead to small, confined spaces; and the apartments are self-contained, giving no hint of each other, and do not relate in a single, harmonious scheme.

This is not merely a consequence of the palaces having been built over long periods: some individual apartments are irregular in themselves, and it is possible to add to a building without destroying its overall regularity. None of these palaces had any such overall regularity from the outset. At a late date, an architect of Bikaner, who seemingly admired the more regular Man Mandir at Gwalior, attempted to impose order on the Bikaner palace by building the unifying north front, which echoes the east front of the Gwalior palace [161, 11]. If such regularity had been considered a worthwhile aim by the earlier architects, then his efforts would scarcely have been necessary.

The irregularity of the palaces and the concomitant quality of elusion, are not, then, accidents of history. Neither were the architects ignorant of the uses of symmetry: it is commended in their own ancient texts,[23] and embodied in many contemporary buildings, including not least their own temples. But still they did not adopt it in the planning of the palaces. This can only have been through choice, and the choice is justified by the picturesque effects which they achieved.

EIGHT

DUNGARPUR, BUNDI AND KOTA: The Hills

In the hilly south of Rajasthan, three small Rajput states fringed the southern and eastern borders of Mewar. The territory of Dungarpur once formed a part of Mewar, but it was founded as an independent state following a split in the family ruling Chitor. The cause, protagonists and date of this split are disputed even among the inscriptions which record it, but it is clear that it occurred before Ala-ud-din's siege of Chitor in 1303.[1] The capital town, from which the state takes its name, was founded somewhat later, probably in the fourteenth century; by tradition it was named after Dungaria, the Bhil chieftain who previously ruled the region, but it is as likely that, like other Rajput capitals, it was named after its Rajput founder.[2] The state of Bundi was carved out of territory controlled by Mina tribesmen, by the Harachauhan Rajput Rao Dewa in the mid-fourteenth century. The city of Kota was founded soon after, within the borders of Bundi state, but it became the capital of an independent state in 1625 when Rao Ratan Singh of Bundi gave it to his son, Madho Singh.

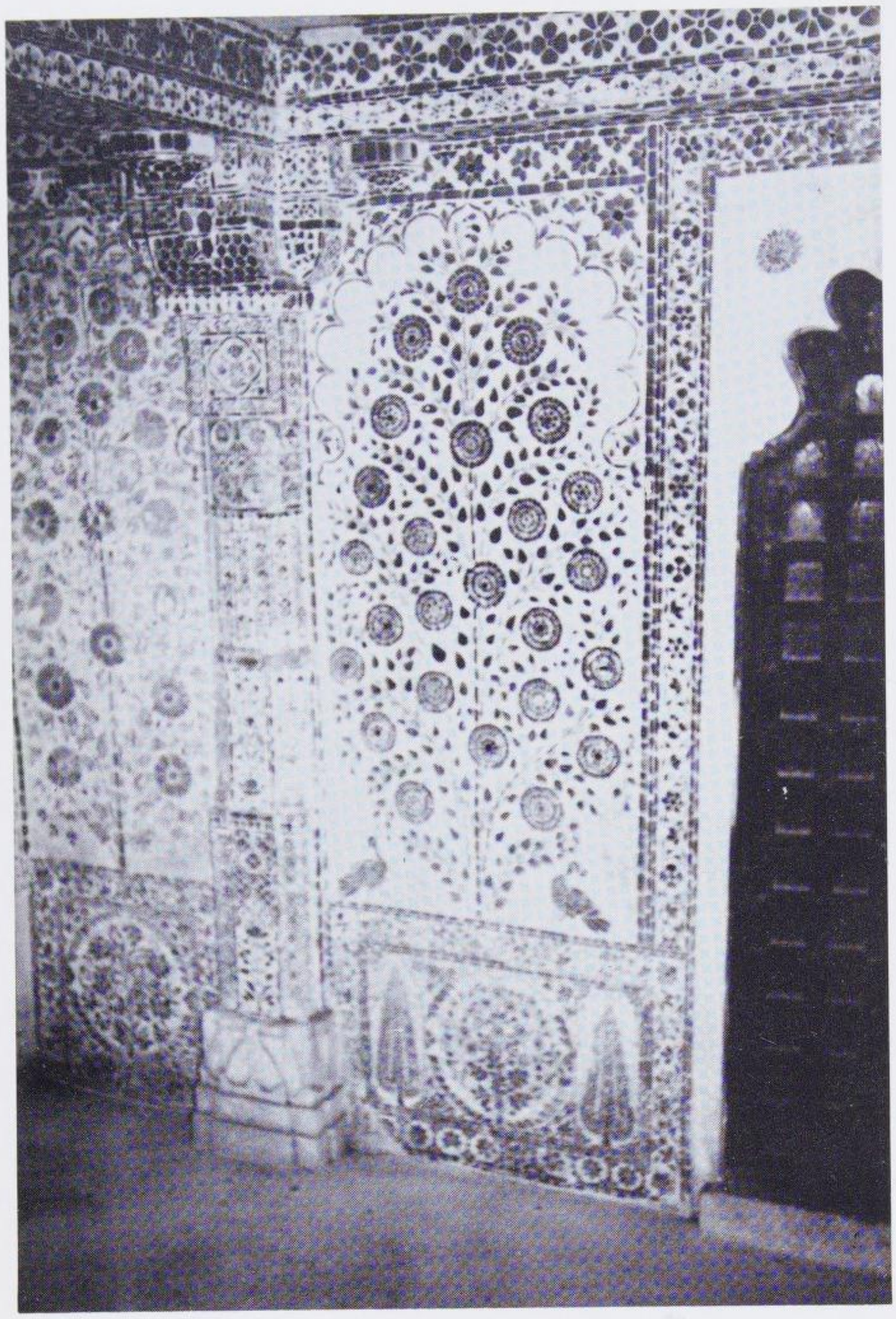
Dungarpur and Bundi enjoyed uncertain relations with their powerful neighbour, Mewar. The rulers of Dungarpur, being related by blood to the Mewar Maharanas and governing a small and weak state besides, remained loyal to Mewar; they were rewarded by having their state occasionally overrun, as for example by Maharana Jagat Singh I (1628–52).[3] The rulers of Bundi had trouble with Mewar in the fifteenth century and the bards count the defeat of Bundi among the achievements of Rana Kumbha;[4] but it was to Bundi that Rana Vikramaditya and the infant Udai Singh fled to escape Bahadur Shah's siege of Chitor in 1533–5. Shortly before, in 1531, Rao Suraj Mal of Bundi and Rana Ratan Singh of Chitor had killed each other while out hunting; and in 1773 Maharao Ajit Singh killed Maharana Amar Singh III in similar circumstances. It is alleged that, centuries before, a dying *sati* had warned that a meeting between the Rana and the Rao at the *ahaira*, or spring hunt, could lead only to misfortune.[5]

Being small, the three southern states, even more than others, were subject to fluctuations of fortune in the turmoil of Rajput affairs. They were also less able than others to resist Mughal suzerainty. Bundi was the first to succumb: in 1569 Rao Surjan gave the fort of Ranthambor to Akbar as a mark of his acquiescence, negotiated by Kanwar Man Singh of Amber, the man who – in his office as a Mughal general – was most responsible for the subjugation of the Rajput states. Shortly after, Man Singh was sent to suppress Mewar, but before confronting Rana Pratap at the battle of Haldighat (1576) he limbered up by attacking Dungarpur and soundly defeated Rawal Askaran (1549–80). The very granting of Kota to Madho Singh by his father, and the foundation of a new state, had to be ratified by the emperor.

xviii. Dungarpur Juna Mahal (from c. 1500) from the north, with the early 18th-century Tripolia in front

xix. Dungarpur Juna Mahal; *a jarokha*

xx. Bundi Palace, from Taragarh (built mostly in the 17th century, on 14th-century foundations)



181. Dungarpur Juna Mahal, from the south-east: the seven-storeyed tower

182 (right). Dungarpur Juna Mahal: the Fateh Prakash (17th century)

Once they had succumbed, the rulers of these states enjoyed the usual concomitant privileges and offices. They also took part in the major upheavals which the empire experienced: in 1658 the raos of Bundi and Kota both fought against the usurping Aurangzeb in the Mughal civil war and both were killed in the struggle; in 1707 their successors fought (on different sides) in the war following Aurangzeb's death.

Dungarpur

The Juna Mahal, or *garh* palace of Dungarpur, is built against a hillside at the edge of the town, the hill being crowned by a fort which served as the final retreat. Though built over a long period – right up until the mid-nineteenth century – the palace is relatively small. The earliest surviving and central part has seven storeys, that number being auspicious and traditionally considered ideal for the storeys of a raja's palace (though it was rarely used in that context) [181]. It rises on a narrow base, like a broad tower, and the lower portion is fortified by a tapering bastion.

The rooms within this tower are small; the ceilings are supported by beams, themselves resting on corbels and pilasters, and sometimes on free-standing columns (of the temple sort). There is rich painted decoration in the style of the seventeenth century. At the top of the palace is an especially fine *sheesh mahal*, the Fateh Prakash [182]; its decorative designs are large and generous but are made up of small fragments

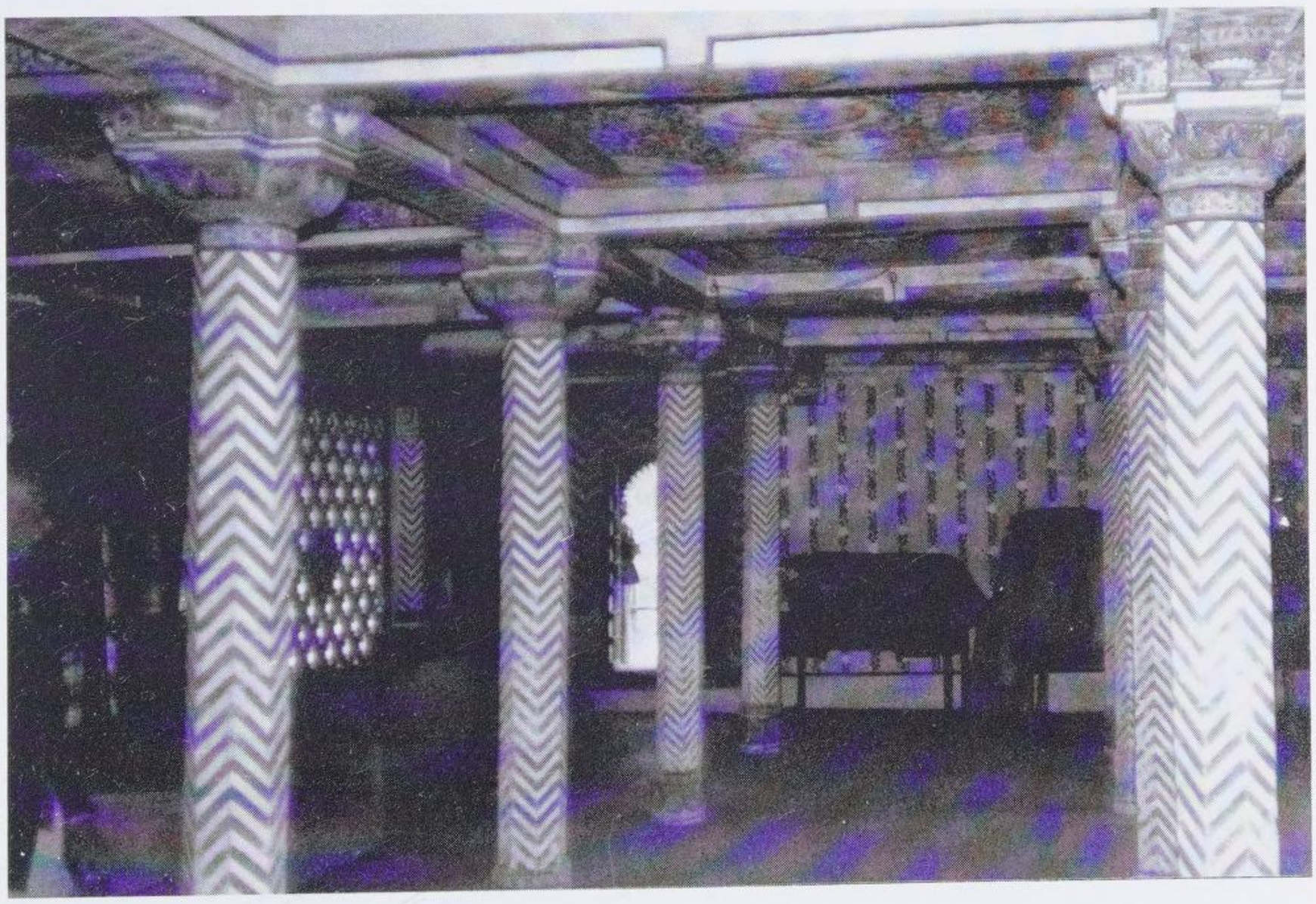
of mirror, and the uniformity of colour (for there is little paintwork) and of the size of the mirror pieces creates a degree of discipline unusual in Rajput *sheesh mahals*.

The rest of the upper portions of the tower form the *zenana*. However, it is evident that this area has been converted into rather than built as a *zenana*: pierced and solid screens clumsily block once open arcades and balconies, and are themselves hastily built with inferior materials [181]. Originally, therefore, as in other Rajput palaces of early foundation, there was no clear distinction between *mardana* and *zenana*. The distinction was made later: when the palace was extended and opened to a wider public, the provision of private space for the women became necessary.[6]

The first major addition to the palace was the *darbar* hall at its south-east end [183]. The ceiling of this hall is supported by free-standing octagonal-shafted columns in a hypostyle arrangement, so that the hall echoes the *sabha* of Rana Kumbha's palace at Chitor, although this hall is larger and the forms are more attenuated. The paintings which cover every surface date from the eighteenth and nineteenth centuries, but the hall itself is older.

The palace was also extended at its north end in such a way that it defined three sides of a small paved *chowk*. Further storeys were added to this north wing as late as the mid-nineteenth century by Maharawal Udai Singh. One of his additions is a large audience hall eccentrically known as the Am Khas: by eliding the names – and perhaps also the functions – of a *diwan-i-am* and a *diwan-i-khas*, it becomes a 'public private' hall [184]. It is very conservative in style, the ceiling being supported on temple columns; but the use of immensely long beams makes possible an unusually wide, open space, an effect made yet stranger by the low ceiling. The painted decoration, as in most other parts of the palace, is profuse; and adjoining the Am Khas is a small personal chamber, the Hingrat, whose surfaces are entirely covered with glass inlay work.

Throughout the palace there are architectural reminders of the state's affiliation with Udaipur. These stylistic correspondences suggest a closer sharing of craftsmen between the two states than between them and others. They also show that despite the general homogeneity of the Rajput palace style, some regional variations in it, brought about through the inventiveness of individual architects, do exist. And



183. Dungarpur Juna Mahal; the *darbar* hall (17th century)

184. Dungarpur Juna Mahal; the Am Khas (mid-19th century)

despite the nature of the design process – involving a cooperative and anonymous guild of craftsmen – some architects succeeded in leaving an individual stamp on the style.

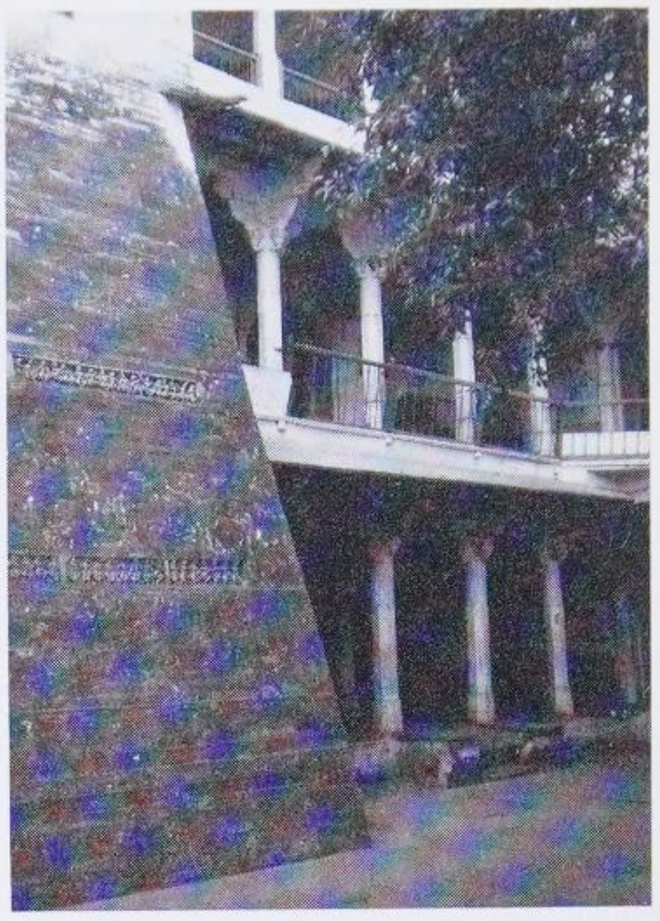
Some of the features of the Dungarpur palace which reflect the state's affiliation with Udaipur are recurring details. These include the otherwise peculiarly Mewari widened form of the cusped arch; the multi-cusped semi-circular arch; and even such small details as the figure of a duck carved in relief on the final curve of a cusped arch.

Also reminiscent of the Udaipur palace are single but dominant features. The palace is approached through an impressive Tripolia [*xviii*] which is remarkably similar to that added before the Udaipur palace in 1725 [185].[7] Along the south-west and north-west sides of the palace's *chowk* are verandas in three storeys which give

185. Udaipur City Palace; the Tripolia (1725)

access to the main apartments [186]; these are unusual features, more reminiscent of a *dharamsala* (a pilgrims' lodge) than a palace, but they are not dissimilar to the verandas flanking Rajya Angan Chowk in the Udaipur palace [110]. Other eccentricities common to the two capitals include the juxtaposition of cusped arches and temple columns. In the Dungarpur palace most of the ceilings are supported by temple columns or pilasters [182], but the openings – both doors and windows – are mostly of cusped arch form [184]; on some balconies the forms are more immediately combined, with temple columns carrying a cusped arch, as in the balcony of the Sabrat Vilas palace at Udaipur, and in a few buildings in the other states bordering Udaipur [139].

The use of stucco and white paint over the exterior surfaces provides a more general resemblance to the Udaipur palace, and distinguishes these two at a glance from the cream-painted Amber palace and the red or yellow sandstone desert palaces. Finally, although irregularity of exterior massing is a quality common to most of the Rajput *garh* palaces, the palaces of Udaipur and Dungarpur are especially alike in this respect. Each of them appears, from the outside, to be a solid mass, though in fact it contains open courtyards; and the outer enclosing wall has a staggered, unpredictable rhythm, complicated by the profusion of balconies [*xviii*, 133]. The facade of the north end of the Dungarpur palace follows so many different planes



186. Dungarpur Juna Mahal; the bastion of the tower and the south-west veranda (16th century)

187. Bundi Palace; Hathian Pol (1607–31)

188. Bundi Palace; the entrance *chowk* with (left) the Hathian Pol and (lower right) the stable

that it is impossible to ascribe to it a single, particular position; it illustrates again that kind of ambiguity or complexity which has been identified as central to the Rajput aesthetic [45].

The single most enhancing peculiarity of the Dungarpur palace is the use of a local greenish-grey stone. Many of the *jarokha*s are of this stone and so are well set off against the whitewashed walls. It is also used for decorative carved tablets depicting temple dancers and musicians; these are found embedded in unexpected places in the palace walls or serving as balustrades in the *jarokha*s, and form a unique example of the introduction of this kind of temple decoration into palace architecture [186, *xix*].

Bundi

The *garh* palace of Bundi (actually so called locally) is sited similarly to the Dungarpur palace: it climbs up the side of a hill at the edge of the city, and the hill is crowned by a final retreat, Taragarh [*xx*]. The palace is doubly fortified, for apart from its own high, thick and sheer walls it is surrounded by an outer fortification wall (from which it is separated by a stretch of steeply rising ground). The outer wall is linked to Taragarh, of which, properly speaking, it is an outwork.

The paved ramp between the outer wall and the palace terminates at the Hathian Pol, the main gate of the palace [187]. Flanked by slender but still powerful towers with emphatic string-courses, and capped by octagonal domed *chattri*s, this gate is reminiscent of the similarly named Hathi Pol at Gwalior [77]; however, it is brightly painted, in red, yellow, blue, white and silver. In front of the stilted and pointed arch of the gate a pair of sculpted and painted elephants join trunks. The elephant as a decorative motif, though common enough in other Rajput capitals, is an especial favourite in Bundi, and these elephants provide an appropriate reception to the palace.

The Hathian Pol leads into a small, turfed *chowk*, on the opposite side of which an arcade of eight pointed arches screens a stable [188]. The uneven, natural surface of the court, and its small size, contrast oddly with the grandeur of the buildings surrounding it; and, together with the suggested presence of horses within the palace,

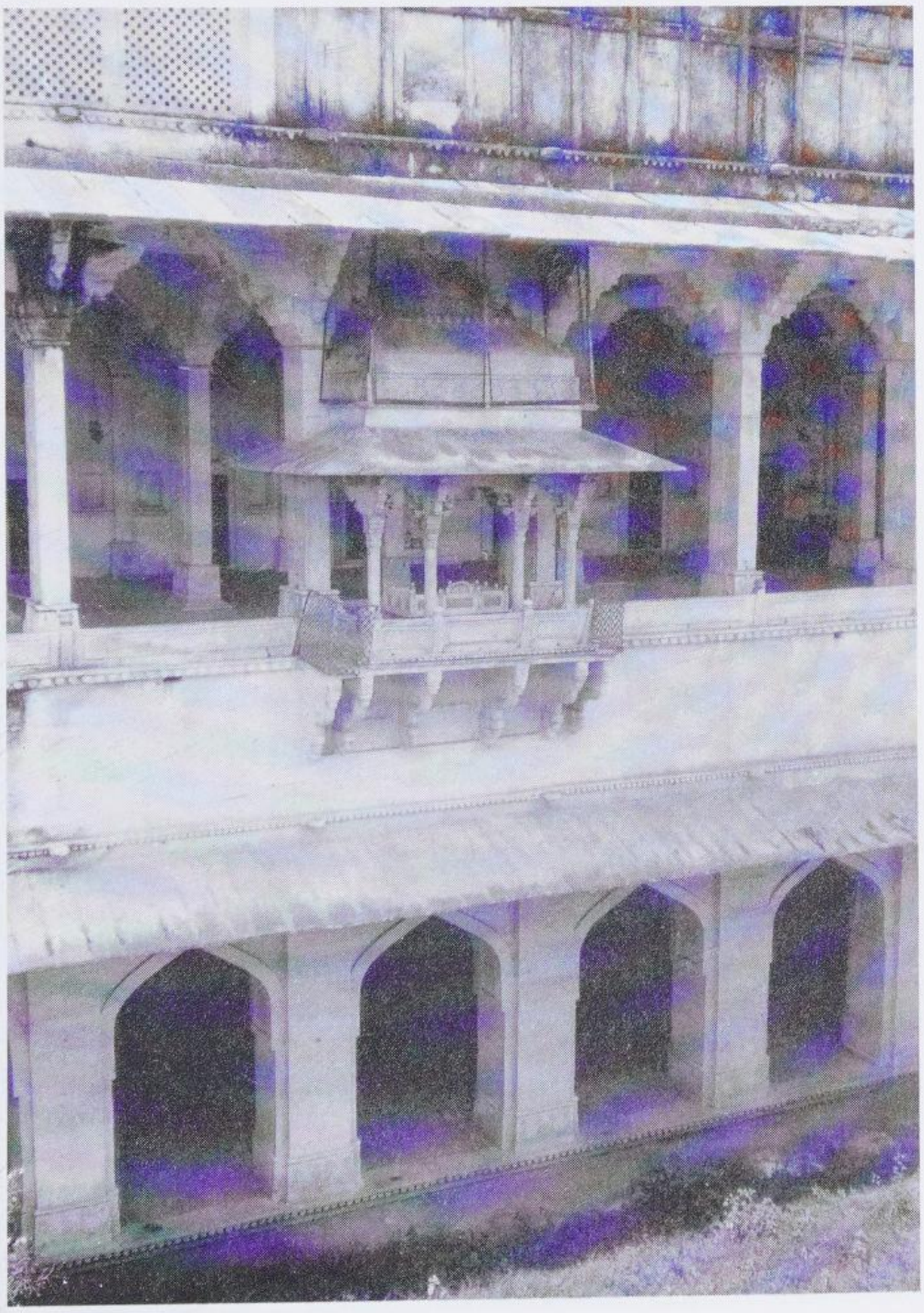
remind us that the Rajput's palace was a warrior's retreat. We are here far removed from the luxurious calm of the Mughal courts, which contain fewer reminders of the military basis of contemporary life.

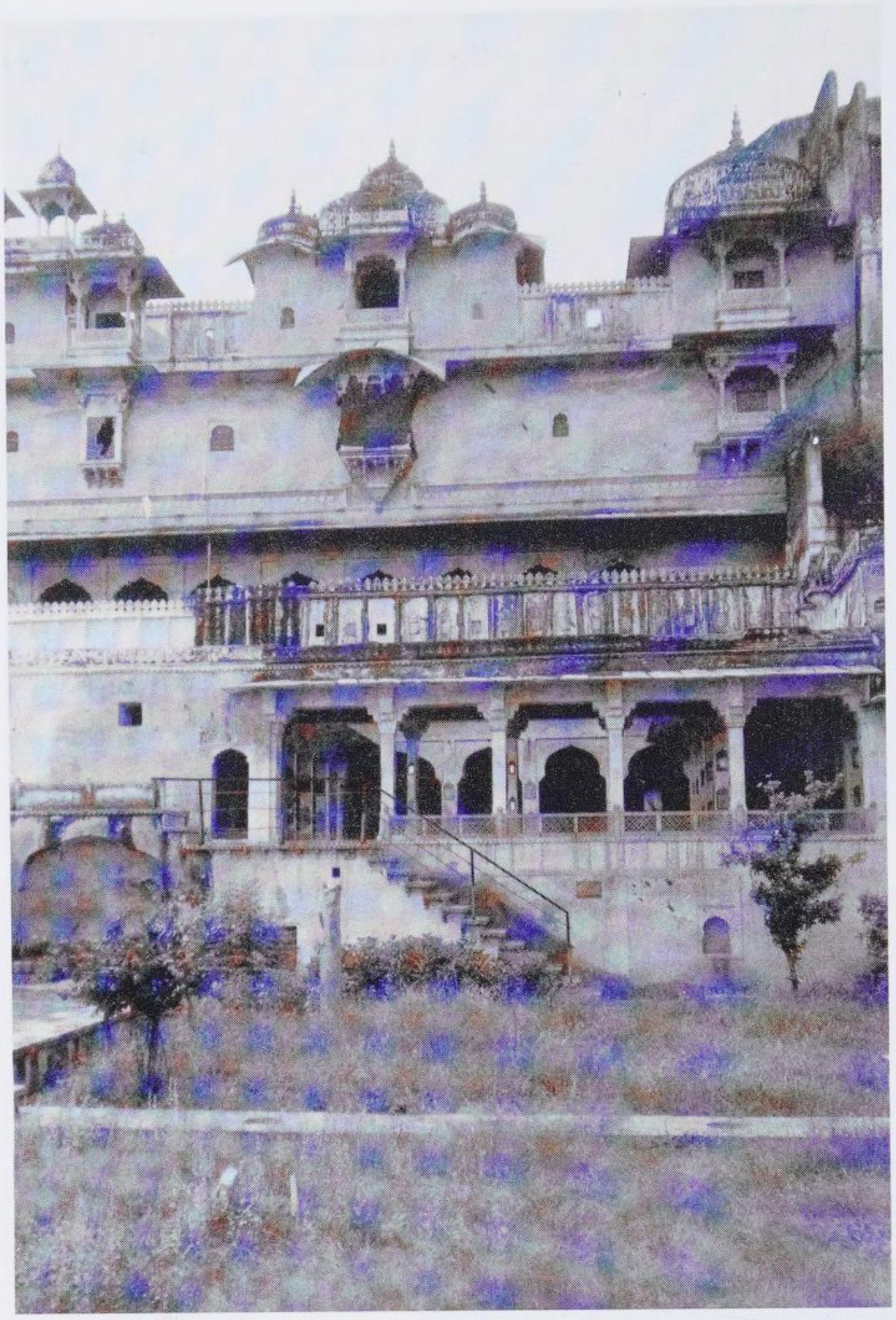
Immediately above the stable is the Ratan Daulat hall, built by Rao Ratan Singh (1607–31) [189]. This is the palace's *diwan-i-am*, also used for the *raj tilak* ceremony (the installation of a new ruler). A white marble seat stands in a balcony which projects over the *chowk*, so that the maharao could be seen and heard both by those privileged to have access to the hall, and those less privileged, observing from the court below. The hall is approached from the *chowk* by means of a grand staircase accommodated in the range north of the *chowk*. Such a staircase is an unusual feature in Rajput architecture and not wholly successful here: it negotiates a right-angled turn only with some awkwardness. The hall's ceiling is supported on plain piers with very elaborate corbel capitals. In general, throughout the palace, archaic and temple-derived forms are used: plain piers and temple columns predominate over balustered ones; and the cusped arch form, though often employed for niches, is seldom employed for full-sized arcades.

Extensive additions were made to the Bundi palace in the mid-seventeenth century by Maharao Chatar Sal (1631–58).[8] His major contribution, the Chatar Mahal, consists of a high-level courtyard (to the south of the entrance *chowk*) and the apartments surrounding it [190]. In the centre of the courtyard is a small, square, marble pool; the rest of the court's surface was painted with bright, geometric designs of which

189 (left). Bundi Palace; the Ratan Daulat hall over the stable (1607–31)

190. Bundi Palace; the southern side of Chatar Mahal Chowk (1631–58)





192. Bundi Palace; the Chitra Shali, from the hanging garden with (above) the *zenana* apartments

191. Bundi Palace; the Hathi Sala (1631–58)

only patches survive. On its north and south sides, the courtyard is defined by open screens; that to the north overlooks the entrance *chowk* one storey below, while that to the south overlooks the sheer outer wall of the palace falling through several storeys. Discovering this disparity between the short drop on one side of the court and the abyss on the other, surprises us. The disparity is a feature of the complex arrangement of the palace, which is encouraged by the site but exploited to dramatic architectural effect. The effect is enhanced by the perilous openness of the southern screen.

On its west and east sides, the court is flanked by columned halls. The western one, the Hathi Sala, has temple columns, whose corbel capitals incorporate small painted models of elephants; with four elephants to each column, the ceiling is a jungly confusion [191]. The eastern hall, though also trabeate in construction, is much grander, with tall, twelve-sided coupled columns – much like those of the Amber Diwan-i-Am. In the back wall of the hall is a large doorway; its lintel and jambs are decorated with glass and mirror-work friezes, while the door itself – like many doors in other Rajput palaces – is of wood and inlaid with ivory.

This door gives access to a suite of three chambers, Chatar Sal's private apartment. A central, long rectangular chamber is flanked by two small square ones, in the pattern established in the palaces of Chitor and continued in the Dilkushal Mahal

of the Udaipur palace. The canopy-form ceiling of the central chamber of the Dilkushal Mahal is echoed in all three chambers of the Bundi suite.[9] The central chamber at Bundi has walls lined with polished stone, and projecting from the walls are small models of elephants and horses which served as pegs on which to hang overgarments. Between the pegs are niches which could be used to store small objects, and which break up the large expanses of wall in much the same way as pictures in a Western house.

The southern chamber of the suite is entirely covered with murals, including views of the palace and of courtly activities within it, such as the celebration of Dashera and assemblies of nobles. The jambs of the doorway into this chamber are decorated with mirror-work in which the applied mirror creates the ground rather than the dominant motifs of the design, the motifs appearing in the areas of stone left uncovered. This ambiguity – where motif and ground vie for dominance – is typical of Rajput decorative friezes. As noted above, it informs one of the tile friezes on the Man Mandir at Gwalior; and it is found too in other common decorative friezes, such as that known as *kangara*, in which a form, through being repeated, leaves a background identical to itself [145].

At the opposite end of the palace, to the north, is another small square court, the Chitra Shali. This court overlooks and gives access to a hanging garden to its east [192], which in turn overlooks the palace's outer wall and the entrance *chowk*, and is as precariously perched as the courtyard of the Chatar Mahal.

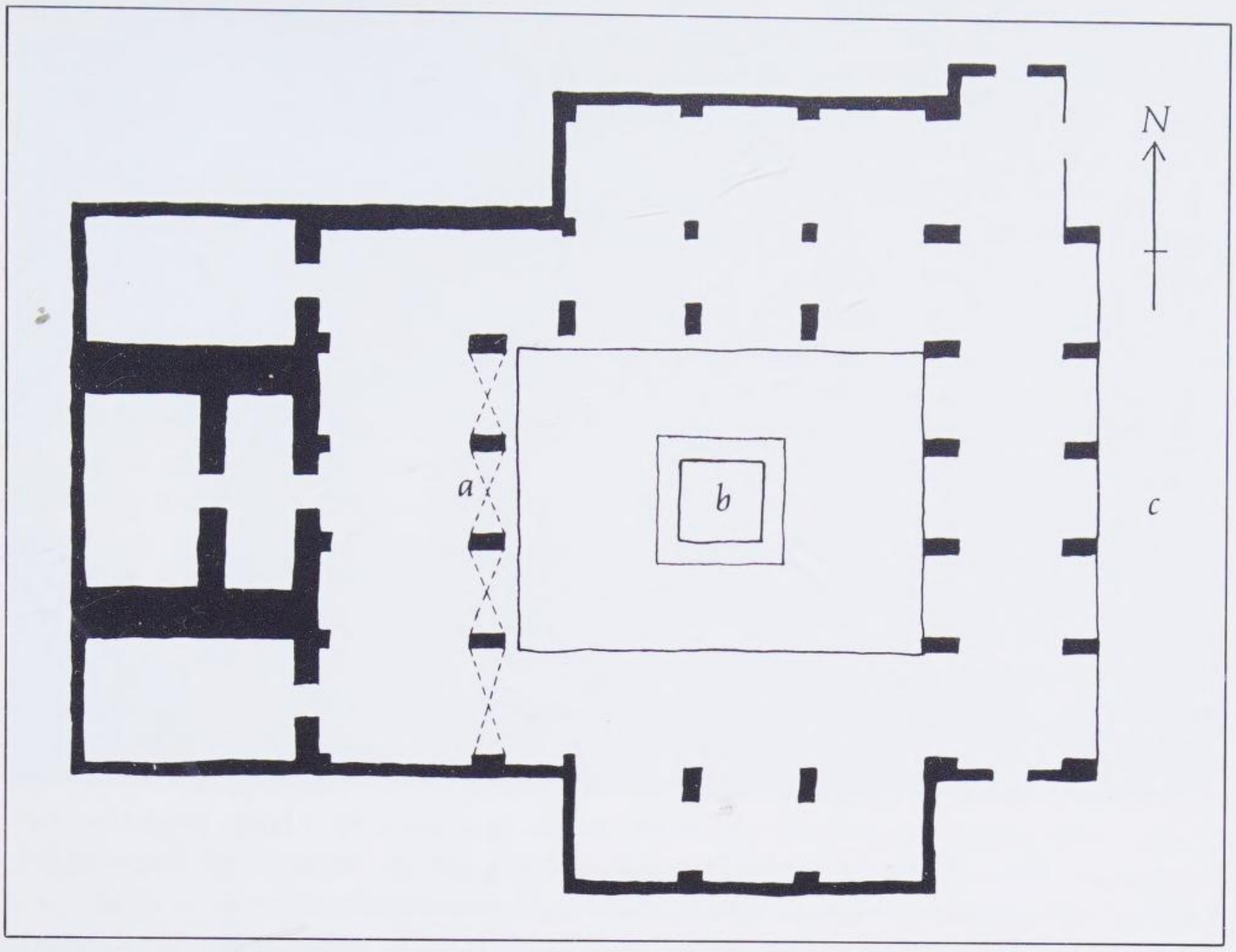
The Chitra Shali court is surrounded by an irregular cloister [193]: three sides consist of plain piers, lintels and corbel capitals (the piers covered with *chunam*), while the west side consists of four stilted and pointed arches, each with the merest ogee pinch. The arch at the southern end of this short arcade is noticeably wider than the others, and this is significant of the informality inherent in Rajput palace building [194]: for instead of dividing the range into four equal units and so building arches of equal measure, the builders have started at one end with three equal arches, and filled in with a fourth the space which remained. That this method would almost inevitably lead to unevenness cannot have been unforeseen; and so its adoption indicates at the least an indifference towards regularity.

193. Bundi Palace; the Chitra Shali (1748–70)

However, in some respects the scheme suggests – more than indifference – a deliberate policy. For the other three arches are equal to each other – there is no indifference to regularity there. The arcade is not irregular throughout; it establishes a formal scheme and then partially upsets it. Similarly, though on a larger scale, three sides of the court are of a uniform design but the fourth, instead of completing the formal scheme, disrupts it. From the more regular parts of the scheme it is evident that the architects perfectly understood the principles of regular planning and design; but they were neither dogmatic in adopting them nor careless in executing them. Rather, they toyed with them in order to add to their designs a whimsical variety and a picturesque informality.

On the walls of the Chitra Shali's cloister are some of the finest murals of Rajput art, dating from the mid-eighteenth century. The subject matter is varied: on the dado, in dark red and white, are depictions of elephant fights; much higher up are views of the palace, including one of this court; and even the spandrels and intradoses of the arches are decorated with floral designs. Pride of place is given to a series of large panels depicting Krishna with Radha and the *gopis* [195]. The rulers of Bundi were adherents of the Vallabha sect, according to which salvation was attainable through contemplation of the amours of Krishna; and though the subject was popular among muralists elsewhere, the prominence given to it here may be taken as a reflection of that special devotion. These scenes are depicted predominantly in blues and greens; but other paintings less exposed to light (in a small chamber west of the court) have more red and yellow, suggesting that the cloister murals' present subtle colour scheme may be the result of fading from a polychrome scheme.

195. Bundi Palace; a mural in the Chitra Shali – the *gopis* implore Krishna to return their clothes (mid-18th century)



194. Bundi Palace; a sketch plan of the Chitra Shali (not to scale): *a* – arcade of pointed arches; *b* – marble pool; *c* – (void over) hanging garden

196. Bundi Palace; the south front (mostly 17th century)

The *zenana* occupies the western region of the palace, contiguous with the *mardana* but reached by a separate stair from the entrance *chowk* and with few points of communication. It is a great range of apartments, conservative in construction: trabeate with temple columns. There is some delicate inlay work in the Badal Mahal – situated above the Hathi Sala, this is the only *zenana* apartment which overhangs a part of the *mardana*. The Bundi *zenana* is chiefly distinguished by the refinement of its *jali* screens, some of which incorporate figures of birds, flowers and elephants

as well as geometric designs; and by the profusion and variety of its domes. The domes are arranged with no regard to overall symmetry, and in places they are piled on top of each other: in one row of three, the central dome is itself surmounted by a fourth [192].

The internal arrangement of the Bundi palace as a whole is to a considerable degree determined by its site. The hanging garden, for example, is half a storey higher than the Ratan Daulat hall, and half a storey lower than the Chitra Shali, and this mezzanine position is determined less by choice than by the accident of the slope of the hill. In this way the palace adapts itself to the site, rather than adapting the site to itself. It is not a block of building divided into separate storeys, but a series of courtyards and apartments at levels determined as much by nature as by art, the whole assembly being encased by an outer, unifying wall. This imposing outer wall is painted cream (and in places plastered first). Along its top its grimness is relieved by a fringe of balconies, arranged again with no regard to symmetry [196]. The whole palace, indeed, is irregular; it is a single, continuous building, giving an impression more of bulk than of form as it climbs up the hillside.

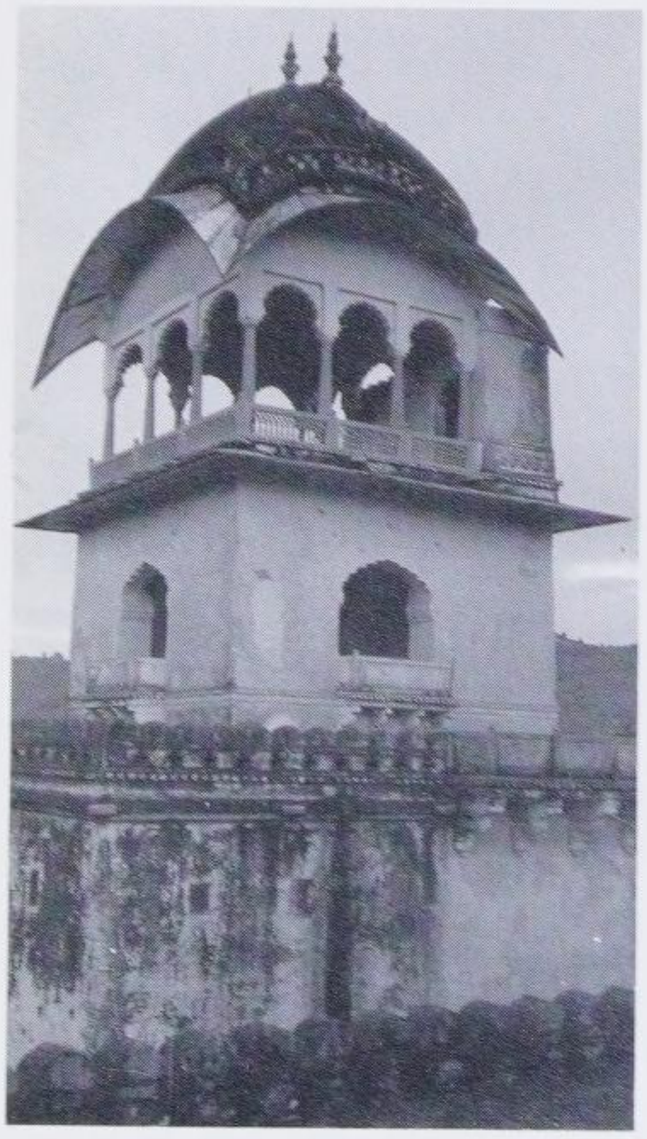
Bundi is well endowed with pleasure palaces. The Rampuria ki Bagichi is a garden with a small house built in 1602 for a concubine by Rao Bhoj Singh (1585–1607) [139]; it is situated near Phul Sagar (a lake which now gives its name to a modern palace). The Sikar Burj, situated to the north of the town, is a shooting box; its high tower, from which to spot and shoot the game, is shaded by a large *bangaldar* roof [197]. The Sukh Mahal is a pleasure palace built on the dam of Jet Sagar [198]. Kipling, who passed an uncomfortable night in it, described it as

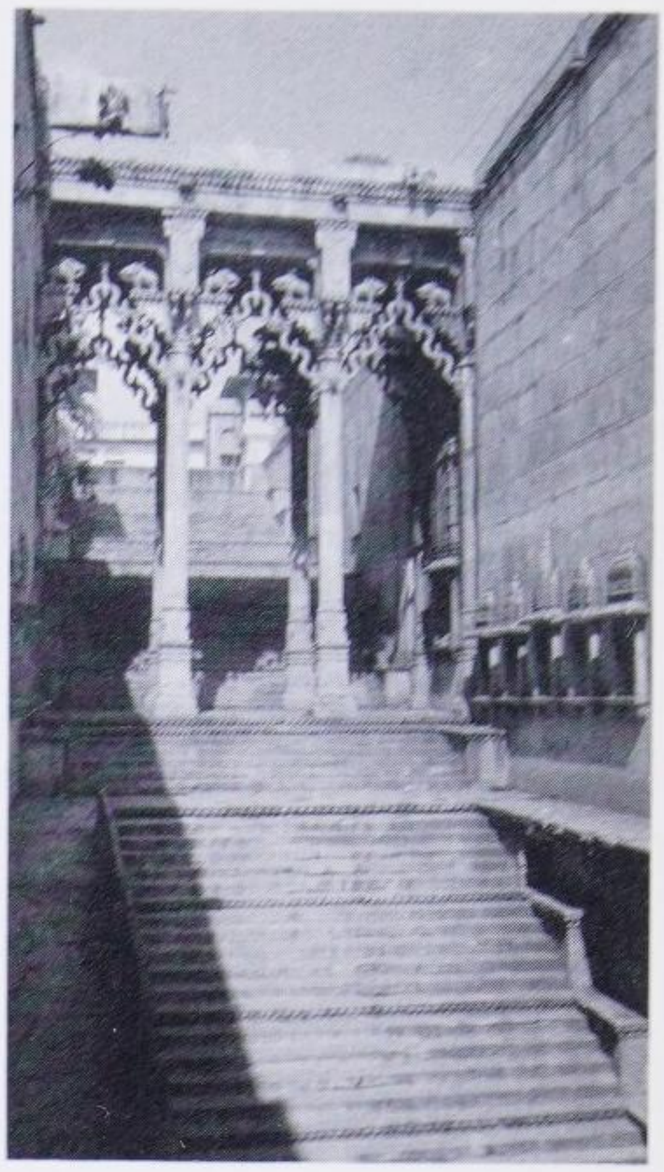
> a place of two turrets connected by an open colonnade. The 'house' was open to the winds of heaven and the pigeons of the Raj; but the latter had polluted more than the first could purify.[10]

The complaint is unjust since, like other such pleasure palaces, the Sukh Mahal was intended not for accommodation but as a lavish picnic canopy. Enclosing the building would have been quite inappropriate; this has, however, recently been done.

197. Bundi; the Sikar Burj (18th century)

198 (right). Bundi; the Sukh Mahal (18th century, with later remodelling)





199. Bundi; the Raniji ki Talab (probably 16th century)

200 (left). Adalaj, Ahmadabad; the step-well (early 16th century)

Also near Jet Sagar is Sarbag, the *mahasati*. The common form of these *devals* is a simple octagonal *chattri* standing on a high plinth and surmounted by a round dome. This pattern was adopted too at the Kota *mahasati*, situated on the banks of Kishore Sagar. More exceptional – though also common to the two places – are the large, three-dimensional sculptures of elephants guarding the *devals*.

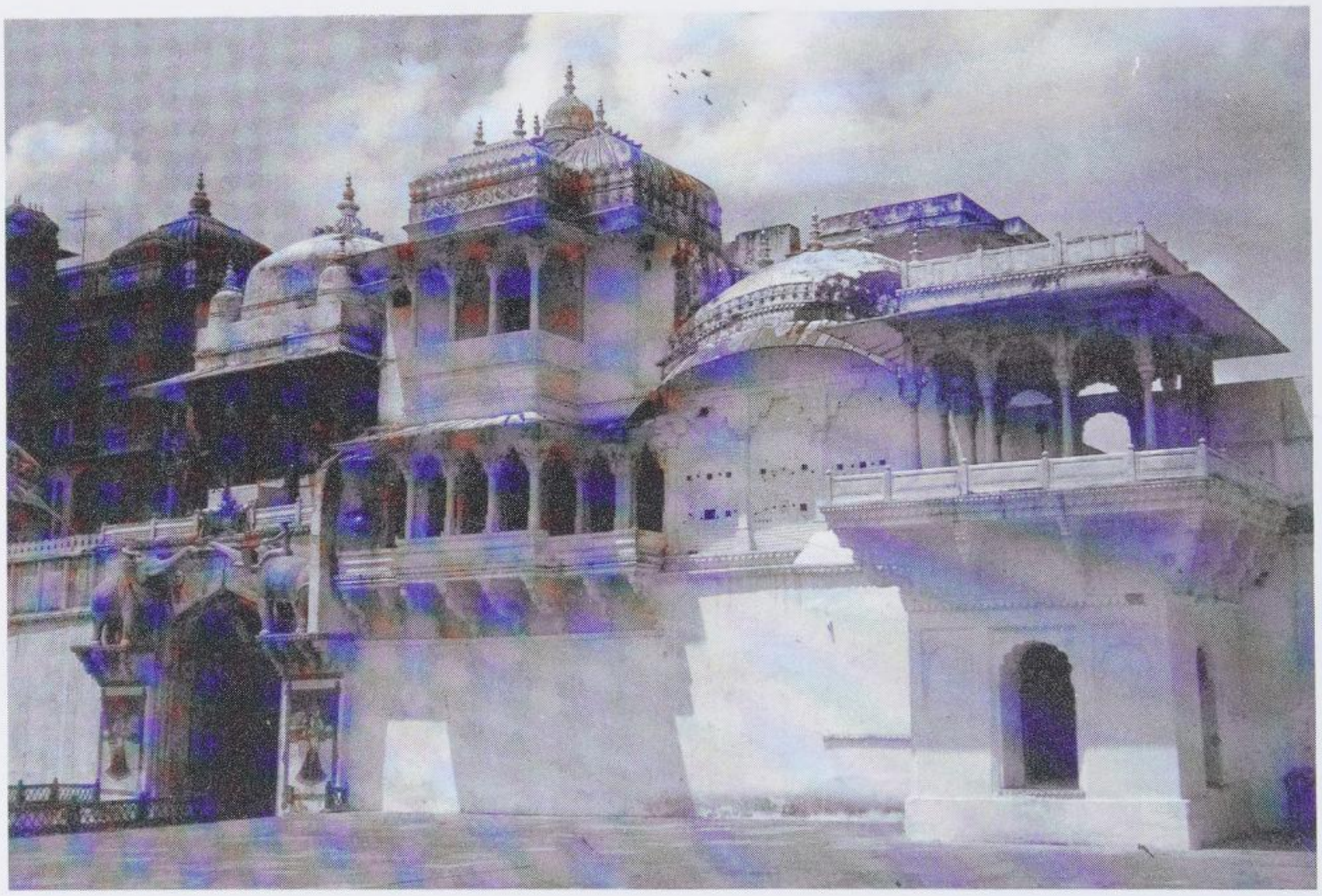
Within Bundi's city walls, the *baolis* or step-wells are unusual for their number and impressiveness. The Jaipuria Kund, the Raniji ki Talab [199] and Nagar Sagar are the finest of them, though there are many others. With their broad steps leading into water and their high, sheer protecting walls, they are dramatic compositions, enriched by delicate decorative carving. Step-wells on this scale are scarce in Rajasthan, though there are comparable wells at several sites in Gujarat; and the arrangement of the Raniji ki Talab in particular is reminiscent of that of the Adalaj step-well, eight miles north of Ahmadabad [200]. It is therefore possible that the craftsmen responsible for building the Bundi wells were brought from Gujarat. The deep rich carving of the Raniji ki Talab suggests a date not much later than that of the Adalaj step-well (early sixteenth century); while the stuccoed cusped arches of the Jaipuria Kund indicate its later date.

Kota

The fort of Kota is situated at the conjunction of the Chambal with a tributary, the Shahi Dehra. The palace within the fort stands detached from the fort walls; in this respect it is like some other Rajput palaces, such as the later two at Orchha, but it differs from them in having little additional fortification of its own. It is true that the only entrance to the palace is through a gate and that there are no openings on the ground storey, but the palace is not raised up on high sheer walls and the upper storey is very open. The main or east front of the palace has the appearance, not of a fortified structure, but of a long aggregate of small buildings in an informal and picturesque composition [201].

In the centre of this composition is the entrance gate, the Hathian Pol. In some respects this is an imitation of the Hathian Pol at Bundi, the parent state: it has the same stilted, pointed arch, the same bright colouring, and a pair of sculpted elephants across the front of the arch. The elephants are in fact a later addition:

201. Kota Fort Palace; the east front (from 1625; with *zenana*, c. 1900, behind)



202. Kota Fort Palace; apartments to the north of the Hathian Pol

they do not feature in a painting of the palace of about 1690.[11] According to local tradition the gate was built by the first rao, Rao Madho Singh (1625–48), and the elephants added by Maharao Bhim Singh (1707–20). The Kota Hathian Pol differs from its Bundi antecedent in being smaller and lacking the flanking towers. The immediately adjacent building, the Arjun Mahal, being taller than the gate, makes the latter less imposing and reduces it to a domestic scale; indeed the Hathian Pol is pretty and varied rather than powerful.

The Arjun Mahal also has echoes of the Bundi palace. On its upper storey is a projecting balcony with columns which incorporate small models of elephants [202], like those in the Hathi Sala of the Bundi palace; and the columns of the

hall below similarly feature models of peacocks, like those in the throne balcony of the Ratan Daulat hall at Bundi.

To the north of the Arjun Mahal, and continuing a straight line with it and the Hathian Pol, is a small rectangular chamber surmounted by a *bangaldar* roof. This balances an identical feature to the south of the Hathian Pol. The two chambers, though of similar form, have different functions: the southern chamber is the top of a Krishna temple, while the northern one is part of the ceremonial region of the palace. Slightly further north again is a marble *baradari* standing proud of the main line of the front, on its own substructure. The *baradari* has cusped arches supported on balustered columns; and its balustrade, overhanging the basement, is supported on powerful curved brackets.

The relation to each other of these four structures – the Hathian Pol, the Arjun Mahal, the domed chamber and the *baradari* – is calculated for the maximum variety and picturesque effect. To begin with, they are of different heights and there is little alignment of storeys: the storeys of the Arjun Mahal, for example, are all out of phase with those of the Hathian Pol. The deep curve of the *bangaldar* roof sets off the strong horizontals of the *chajja*s on the other buildings; the projection of balconies and balustrades supported on brackets, and the forward position of the *baradari*, break up the flat surface of the palace front; and open, deep spaces – such as the arch of the gate and the colonnades of the Arjun Mahal and the *baradari* – alternate with flat surfaces – such as the substructure and the screened colonnade of the domed chamber. There is also a rich mixture of forms: the cusped arches and balustered columns of the *baradari*, for example, are placed immediately adjacent to the temple columns and corbel arches of the domed chamber. Such is the variety that one might suppose these four buildings had been collected here, rather than built to harmonize with each other in a unified scheme. In fact, they relate to each other in the more subtle ways described, each setting off the other by contrast; and they harmonize in that no element of the composition is dominant.

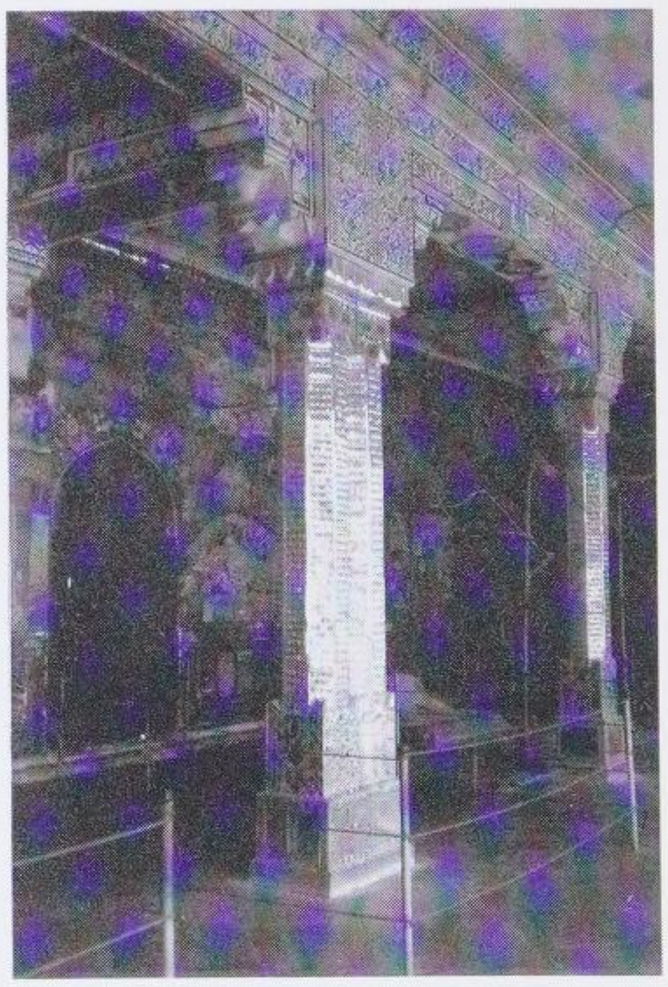
At the north end of the palace range is the Laxmi Bandar Tribari, a small chamber with two adjoining *puja* rooms; the walls are decorated with murals depicting the celebration of festivals such as Holi. Above this suite is an open columned hall, confusingly called the Barah Dari, though strictly it is not one. It is large and of hypostyle arrangement, in the tradition of the Chitor *sabha* and the *darbar* hall of the Dungarpur palace; however, it is less successful than those precedents, since the columns are very short and the ceiling too low. Both of these apartments are locally attributed to the first rao, Madho Singh, as is the finest audience hall in the palace – the Raj Mahal, in the north range of the palace's inner court.

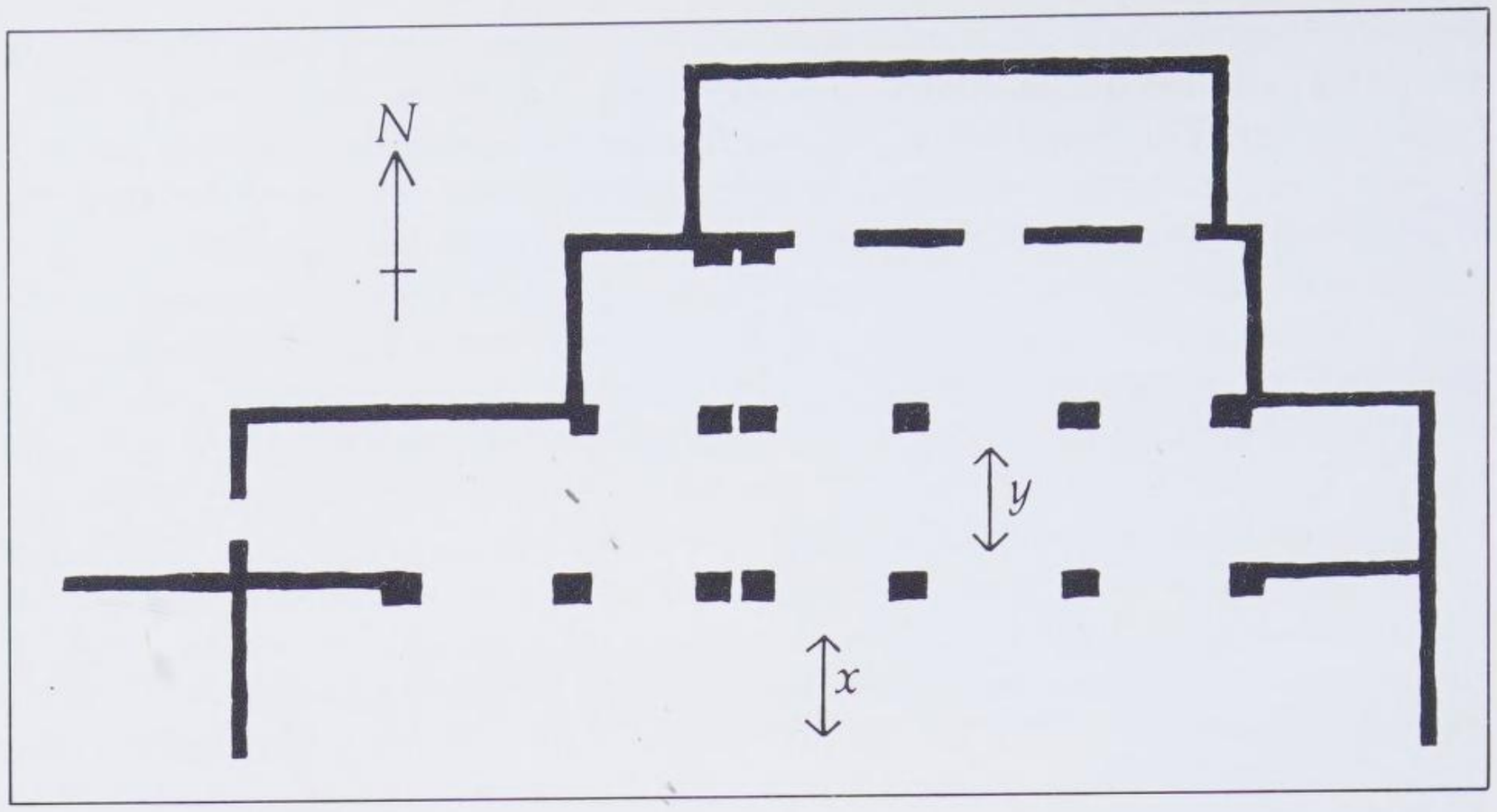
The Raj Mahal has enormously enlarged temple columns supporting a very high ceiling [203]. The temple-style column in palace architecture is often a miniature form and seldom exceeds six feet in height; the exaggerated size of these gives them an element of the grotesque – an aspect enhanced by the lavish surface decoration added in the nineteenth century.

The plan of the hall indicates the same attitude to symmetry as does the Chitra Shali of the Bundi palace: a symmetrical scheme is suggested but disrupted [204]. What one at first takes to be the central axis of the hall is soon found to be not in the centre; the hall is more extensive at its western end and the columns there are coupled, so that there is no symmetrical balance with the eastern end. It is not that there has been no regard to symmetry; the hall is not hopelessly irregular. Rather, there has been sufficient attention to the rules of symmetry to lead us to assume at first that the hall is perfectly regular; and certain deviation from them, so that we soon find our expectations violated.

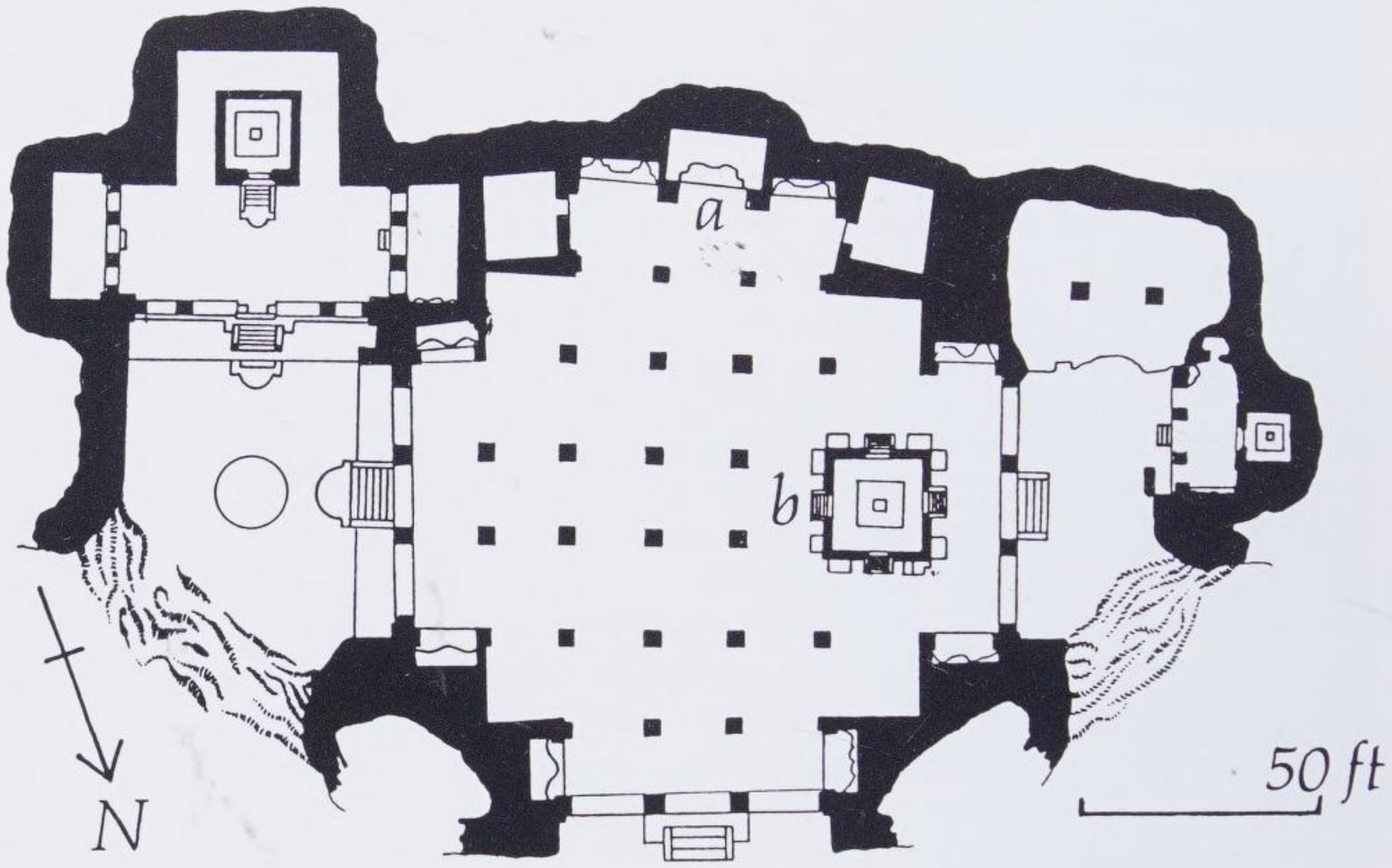
A similar effect is achieved much earlier in the Hindu tradition, in some of the cave temples. In the Siva cave temple on Elephanta (c. eighth century), for example,

203. Kota Fort Palace; the Raj Mahal (c. 1625; with 19th-century decoration)



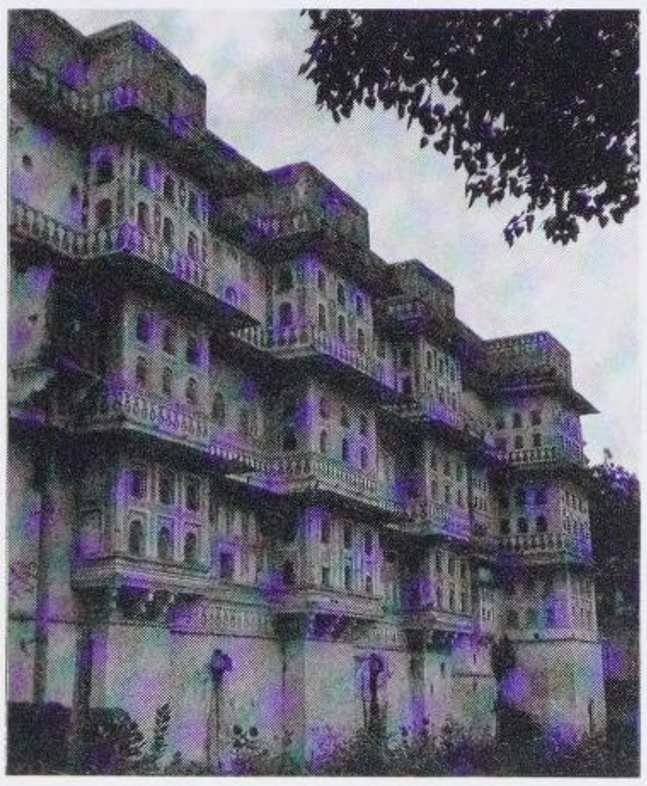


204. Kota Fort Palace; a sketch plan of the Raj Mahal (not to scale): *x* – axis of *chowk*; *y* – apparent axis of hall



205. Elephanta; a plan of the Siva cave temple (c. 8th century): *a* – Mahesvara-murti; *b* – *garba griha*

206. Kota Fort Palace; the east front of the *zenana* (c. 1625)



there is a tension between two axes, one governed by the famous Mahesvara-murti image and the other by the separate *garba griha* [205]. The removal of either of these features would create a symmetrical scheme; as it is, they compete for dominance, upset the symmetry and leave the observer wondering where the intended main axis lies. It is seemingly these ancient sanctuaries, then, which hold the origin of that aesthetic quality later to be of such importance in the Rajput palaces.

The original *zenana* of the Kota palace is, unusually, a detached block, standing to the south of the *mardana*. Its main or east front is a regular and somewhat monotonous composition, despite the attempt to create some variety by the projection of parts of the facade in bays [206]. All the small openings are filled with *jalis*. The combined effect – a blind, regular block with shallow projecting bays – is reminiscent of the *zenana* of the Jaisalmer palace [149]. The west front is much more open and varied – openness is feasible here because this side overlooks a garden rather than the parade ground.

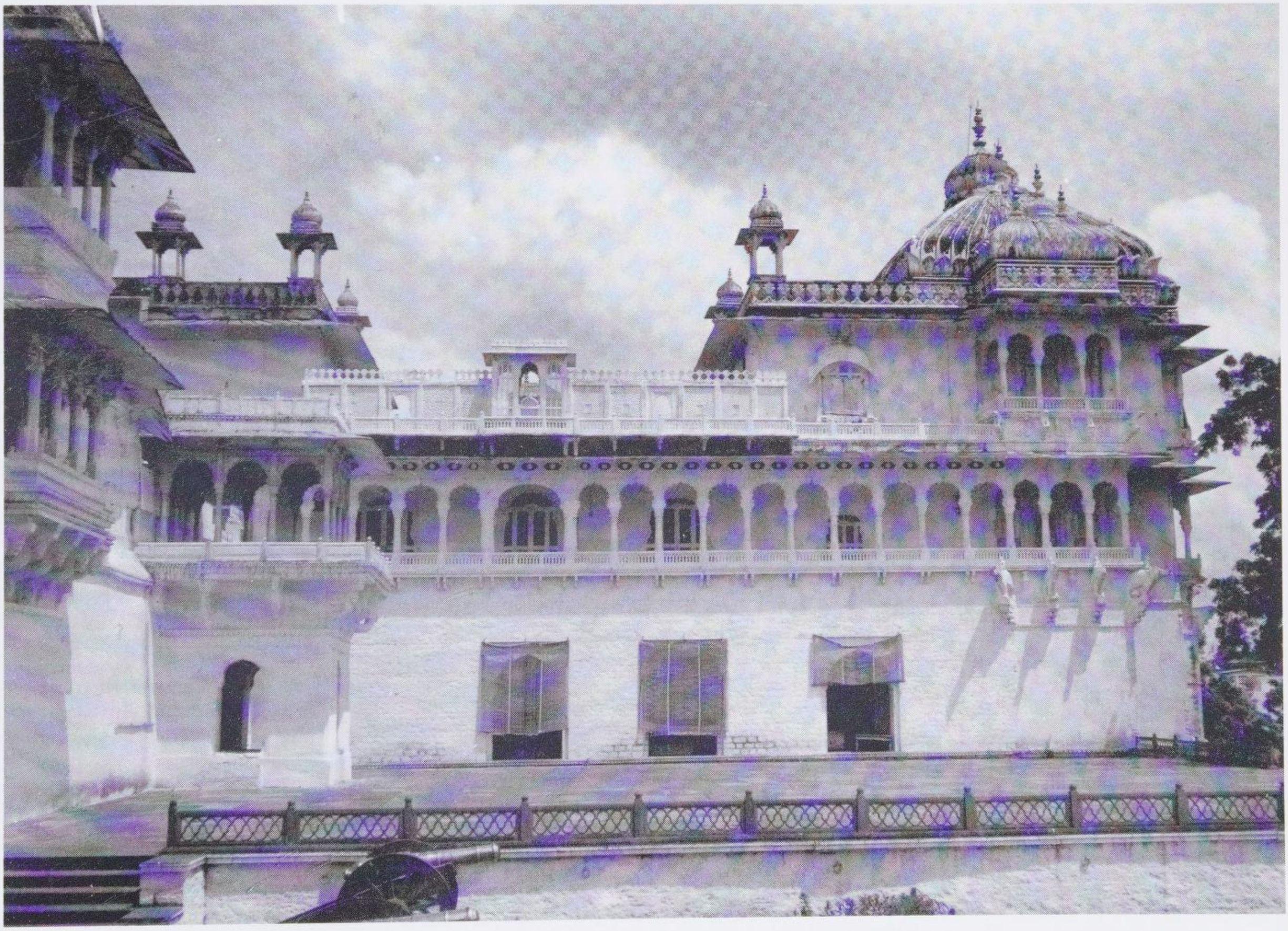
A new wing was added to the *mardana* early in the eighteenth century by Bhim Singh [207]. This stands at the north end of the palace's main front, projecting

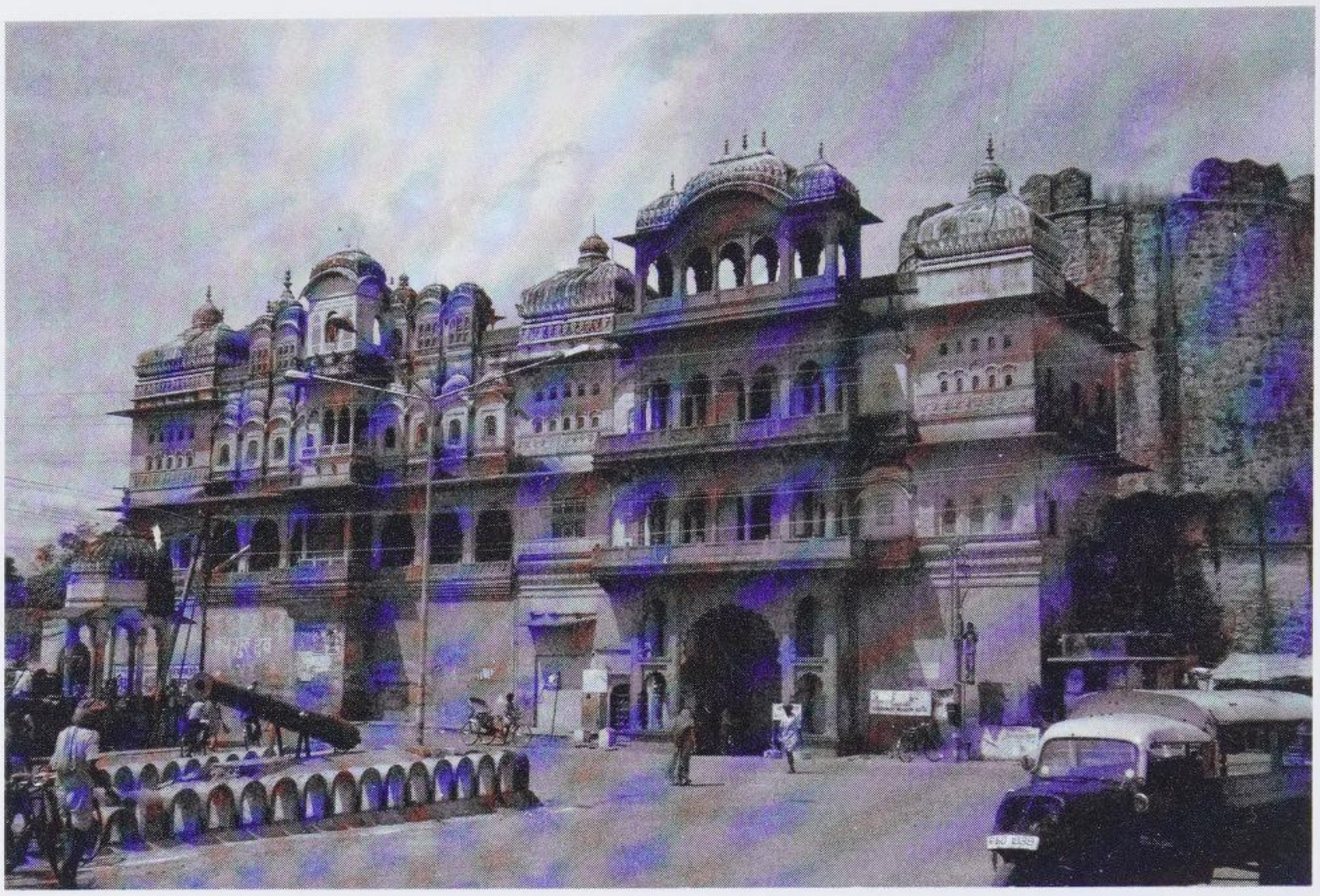
from it eastwards, and yet further enhancing its picturesque variety. Above a basement storey is the Bhim Mahal, a large *darbar* hall crossed by lateral arcades of cusped arches. The cusps break out into foliage; and more generally too the forms in this room are weak and florid, anticipating the emasculation of the style soon to be found in the palaces of Jaipur. Above the Bhim Mahal is an open *chowk* and the Bada Mahal, a suite of two rooms with architectural forms similar to those of the Bhim Mahal, but relieved by some fine murals, on a generous scale and freely painted, depicting birds and flowers.

The remaining, later parts of the palace are of less interest and may be considered briefly. Another large hall, the Akhade ka Mahal, was added to the west of the inner court by Maharao Durgan Sal (1723–56); it was at first used for wrestling matches, and was enlarged and substantially rebuilt by the great Maharao Umed Singh (1888–1940). In 1864 the Hawa Mahal was added next to the entrance to the fort[12] (quite separate from the main palace) [208]; in conception and outline this resembles the late eighteenth-century Hawa Mahal at Jaipur, though it is tamer than that exuberant structure [219].

In the later Victorian period, Umed Singh built two huge identical *zenana*s (one for each of his two wives) between the old *zenana* and the *mardana* [201]. At the same time extensive additions were made to the north end of the *mardana*, linking it for the first time to the fort wall, and extending it westwards. These additions, though thoroughly ugly, fulfil one aspect of the Rajput palace tradition. For the process of addition and extension is essential to Rajput palace building. The Rajputs never felt respect for a building as a consistent, unified monument to be preserved

207. Kota Fort Palace; the Bhim Mahal and the Bada Mahal range (1707–20)





208. Kota; the Hawa Mahal, on the eastern fort wall (1864)

as a vestige of a vanished age, but more pragmatically re-arranged and extended buildings to answer changing needs. We may lament the inferior additions of the nineteenth century, but it would be unreasonable to suppose that the Rajputs might abruptly have changed their attitudes concerning the purposes of architecture.

NINE

JAIPUR CITY AND PALACE: The Call to Order

When the Emperor Aurangzeb died in 1707 and his sons fought for the succession, two prominent Rajput maharajas, Maharaja Sawai Jai Singh II of Amber and Maharaja Ajit Singh of Jodhpur, backed the wrong side: they supported Azam Shah against Shah Alam (later Bahadur Shah) at the battle of Jajau near Agra in June 1707. As a result they were expelled from their capitals which were occupied by Mughal garrisons. Ajit Singh had only earlier that year regained his patrimony which had been occupied by the Mughals since his father's death in 1678. Although both Jai Singh and Ajit Singh regained their states in 1708 (when Bahadur Shah was distracted by his other surviving brother Kambakhsh and by the Sikhs), their temporary losses are a measure of Mughal control, of the serious consequences for a Rajput raja of misjudgment in his dealings with the Mughals.

By 1719, just twelve years after the death of Aurangzeb, the balance of power had shifted decisively. Aurangzeb's successors were weak or dissolute, and reigned only briefly. Bahadur Shah, already an old man by 1707, died in 1712; his son Jahandar Shah reigned for just eleven months before his chief minister grew tired of him and murdered him. When Farrukhsiyar (1713–19) quarrelled with his ministers, the Sayyid brothers, he sought assistance from Ajit Singh of Jodhpur. Ajit Singh, who had no reason to be enamoured of the Mughal dynasty, responded by plotting with the Sayyids and, as he calmly records, had Farrukhsiyar garrotted without ceremony.[1] In 1719 the Sayyids and Ajit Singh proclaimed as emperor various of Farrukhsiyar's pliable cousins, but each no sooner succeeded than died. Eventually they settled on Muhammad Shah, whose principal achievement was to survive until 1748. That Ajit Singh could with impunity assist in determining the Mughal line shows the extent of Mughal decline – a decline which emboldened the Rajputs to greater self-assertion.

The city of Jaipur, begun in 1727, is a product of this new spirit. Maharaja Sawai Jai Singh of Amber (1699–1743) felt that his capital was too small for a raja of his stature and so he built an entirely new city. The transfer of a capital was not unknown in Rajput history but it had never been performed from this motive. The capital of Mewar had been transferred from Chitor to Udaipur in 1567 through sheer necessity: Akbar had sacked Chitor. The capital of Marwar had been transferred from Mandore to Jodhpur in 1459 for reasons of strategy: Jodhpur is more defensible. But Jai Singh was guided by no such considerations: he was in full control of Amber in the 1720s, and Jaipur is much less defensible than Amber – indeed its very vulnerability, sited on an open plain, indicates Jai Singh's boldness. The transfer of his capital from Amber to Jaipur was largely a matter of prestige.

Jaipur is unusual among Rajput capitals not only because it is built on a plain.

xxi. Jaipur; Sireh Deori Bazaar

It was conceived all at once and developed from almost scratch to almost completion very rapidly. The basis of the city was a hunting lodge and garden, known as Jai Niwas, situated on a large plain which is five miles south of Amber and ringed – though hardly protected – by a range of hills on all but the west and south-west sides. This site Sawai Jai Singh personally selected for his new capital, specifying that 'Jai Niwas should come within this city, this is my wish'.[2] The foundation stone of the city was ceremonially laid in November 1727,[3] though building had begun two years earlier.[4] The principal streets had been set out and their major buildings erected by 1734: there survives an account of Jai Singh playing Holi throughout the central parts of the city in that year.[5] By then Jaipur had been in effective use as the state capital for at least a year: it was officially recognized as such by the emperor in 1733.[6]

It was the use of rubble and render as the principal building materials, rather than dressed stone, which made feasible this swift assembly. The local stone, including that of the hills immediately around Jaipur, is grey and unattractive. The rich red and easily workable sandstone used to such splendid effect in many Rajput capitals, especially Jodhpur, and in the Mughal capitals, is not found near Jaipur. The palace of Amber is mostly built of the local stone, rendered and painted cream, though some individual parts of the palace are built of higher quality, imported stone: the Diwan-i-Am is built of red sandstone and the Jai Mandir of white marble. Building an entire city at once using imported stone would have proved impossibly expensive, and it was probably for this reason as much as from a desire to build

the city quickly that Jai Singh used rubble and render. Furthermore, the use of a rusty pink rather than cream paint over the render meant that a passable imitation of the fashionable red sandstone could be created at a fraction of the cost.

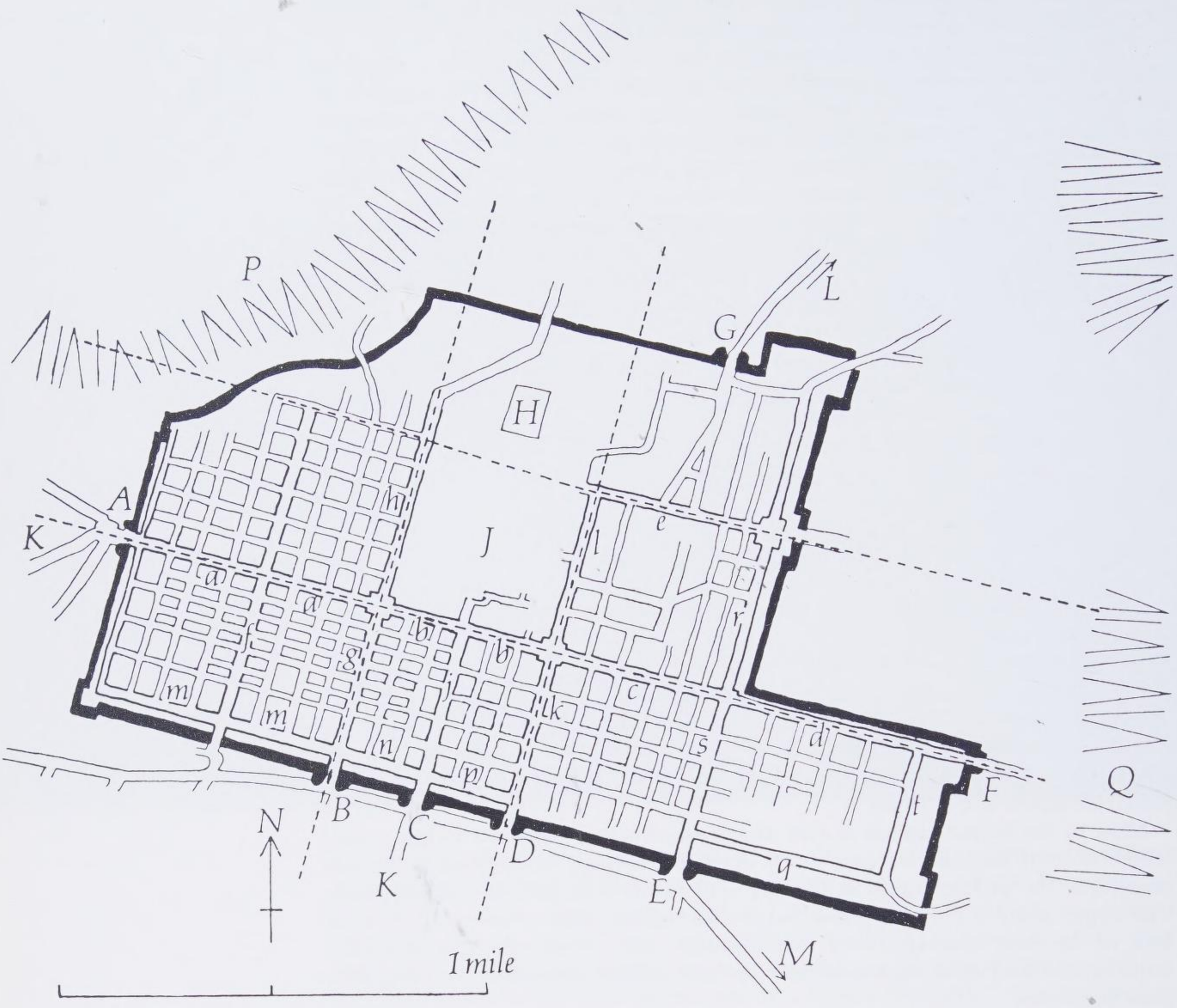
There is some uncertainty about whether this pink wash is original – some assert that the city was originally painted cream or white.[7] This theory is plausible as it suggests a continuation of the practice found at Amber; and certainly some of the buildings in the city, including most notably the Chandra Mahal (the main block of the palace), are now cream and may always have been so. But the only evidence ever advanced in support of the theory is the alleged description of the city as white by Joseph Tieffenthaler (who visited Jaipur soon after its completion) and a description of the Hawa Mahal as white in a contemporary poem;[8] and this will not do: the latter can be put down to poetic idealization, and the abused Tieffenthaler made no such remark – he does not refer to the colour of the city at all.[9] It is probable that the pink wash on the principal bazaars and city walls is original. The earliest known paintings of Jaipur, dating from the reign of Maharaja Sawai Ishwar Singh (1743–50), Jai Singh's son and immediate successor, depict pink buildings.[10] And the city walls are very close in design to the walls of the Mughal Red Forts of Agra and Delhi, so much so that it is evident that the architects intended to create a similar effect; it is more likely than not, therefore, that the similarity in colour is a part of that original intention.

The most unexpected aspect of Jaipur city is the regularity of its plan [209]. The principal streets meet at right angles and divide the city into roughly equally sized wards, and the minor streets meet also at right angles to subdivide the wards. Precisely because it is unusual, the plan of Jaipur is the subject of much writing.[11] It is often alleged that it differs totally from the plans of all other Rajput capitals, and indeed from all earlier towns throughout India, which are represented as being designed according to no established planning principles.[12] This is to overstate the case. It is the regularity and only the regularity which distinguishes Jaipur from other Rajput cities; those others do embody some planning principles, and ones which are adhered to in Jaipur.

Most of the Rajput capitals consist of a fortified palace contained within a city[13] which is itself fortified by an outer wall; and the major route through the city runs from the principal gate in the city wall to the principal gate of the palace. The major route is also the major bazaar, for in India large market-places of the type of the Arab *souk* are rarely found; rather, market and route are combined. Superficially the Rajput capitals differ from each other in their plans, but must obey these principles.

Thus in Udaipur, the *garh* palace is situated in the western district of the old city and the main bazaar links the Hathi Pol, the northern gate in the city wall, with the Badi Pol, the outer gate of the palace. In Bundi, the *garh* palace is in the north-west corner of the city and the main bazaar links the palace's outer gate and the Chougan Pol in the southern side of the city wall. At Datia, the Govind Mandir crowns a hill within the city and again the main bazaar leads from a gate in the city wall to the entrance of the palace.

The same pattern is found in those Rajput capitals which are fortresses. The fort of Chitor originally contained the entire city, so that the fort wall is also a city wall; and the major road through the fort links the highest gate of the ascent road, the Ram Pol, with Rana Kumbha's palace. A lower town, or *taleti*, has grown up to the west of the fort; this is undefended, but the major route through it leads to the Padal Pol at the base of the ascent road, so extending the link between city and palace. The fort of Gwalior probably never contained the whole of the city but there again the ascent road links the *taleti* below the fort with the Man Mandir



209. Jaipur; a sketch plan of the city
Main bazaars: *a* to *d* – Chandpol, Tripolia, Ramganj and Surajpol Bazaars; *e* – Moti Kotla Bazaar; *f* – Khazenewalon ka Rasta; *g* to *h* – Kishanpol and Gangouri Bazaars; *j* – Char Rasta Bazaar; *k* to *l* – Johari and Sireh Deori Bazaars. *Outer roads*: *m* to *p* – Behari, Nehru and Bapu Bazaars; *q* – Rasta Balaji ki Koti; *r* to *s* – Dayanand Marg and Ghat Darwaza Bazaar; *t* – Pahar Ganj ka Rasta. *City Gates*: *A* – Chand Pol; *B* – Ajmeri Gate; *C* – new gate; *D* – Sanganeri Gate; *E* – Ghat Darwaza; *F* – Suraj Pol; *G* – Jorawar Singh Pol. *H* – Tal Katora; *J* – palace compound; *K* – modern city, to the west and south of the old; *L* – route to Man Sagar and Jal Mahal ($1\frac{1}{2}$ miles) and Amber (5 miles(; *M* – route to Sisodia Rani Mahal ($1\frac{1}{2}$ miles) and Agra (144 miles); *P* – Nahargarh; *Q* – Galta

inside it. Jaisalmer, like Chitor, originally consisted only of the fort; the ascent road here leads from the outer gate to the *chowk* which is surrounded by the palace and from which routes lead to the various quarters of the citadel. In the eighteenth century the city spread outside the narrow limits of the fort wall and Maharawal Mulraj II (1762–1820) constructed an outer city wall;[14] the main bazaar through the *taleti* runs from the northern gate in this wall, the Amar Sagar Pol, passes in front of the lowest gate of the fort, the Akhai Pol, and continues to the eastern gate of the city wall, the Gadisar Pol. The city of Jaisalmer therefore follows the defined principles in both stages of its development.

The principles are also followed in those Rajput capitals where the palace is contained within a fort which does not include any part of the city. In Jodhpur, the fort containing the royal palaces is situated approximately in the centre of the walled city and the main route through the oldest portion of the city (to the west of the

fort) leads from the western city gate, the Chand Pol, to the Fateh Pol, the lowest gate of the ascent road of the fort. In Kota, again the palace is contained within a fort and the fort within the city, and the main bazaar through the city leads to a gate of the fort.

This common pattern can be accounted for in terms of a selective obedience of prescriptions in the *silpa-sastras* and with reference to early Indian precedents. Most of the ancient texts, including the *Manasara*, recommend that a city be fortified by an outer wall with gates;[15] Mandan, a chief architect of Rana Kumbha of Chitor, recommends in his *Rajavallabha* that the palace be placed in the centre or in the highest quarter of the city;[16] and most ancient Indian cities contained a single main street known either as *toranamarg* or as *rajamarg*[17] – names which suggest that it led from a gate to the palace. There is much else in the *silpa-sastras* which the planners of the Rajput cities have ignored, but even so the Rajput type of city plan can be explained within the terms of the Hindu tradition.

Jaipur conforms to this type. The city palace is contained within a boundary wall, the *sarahad*, and is situated in the centre of the city, which is also walled; the principal bazaar leads from the western gate in this wall, the Chand Pol, passing in front of the Tripolia gate of the *sarahad*, to the eastern city gate, the Suraj Pol. And so in certain repsects the plan of Jaipur is well precedented within the Rajput school.

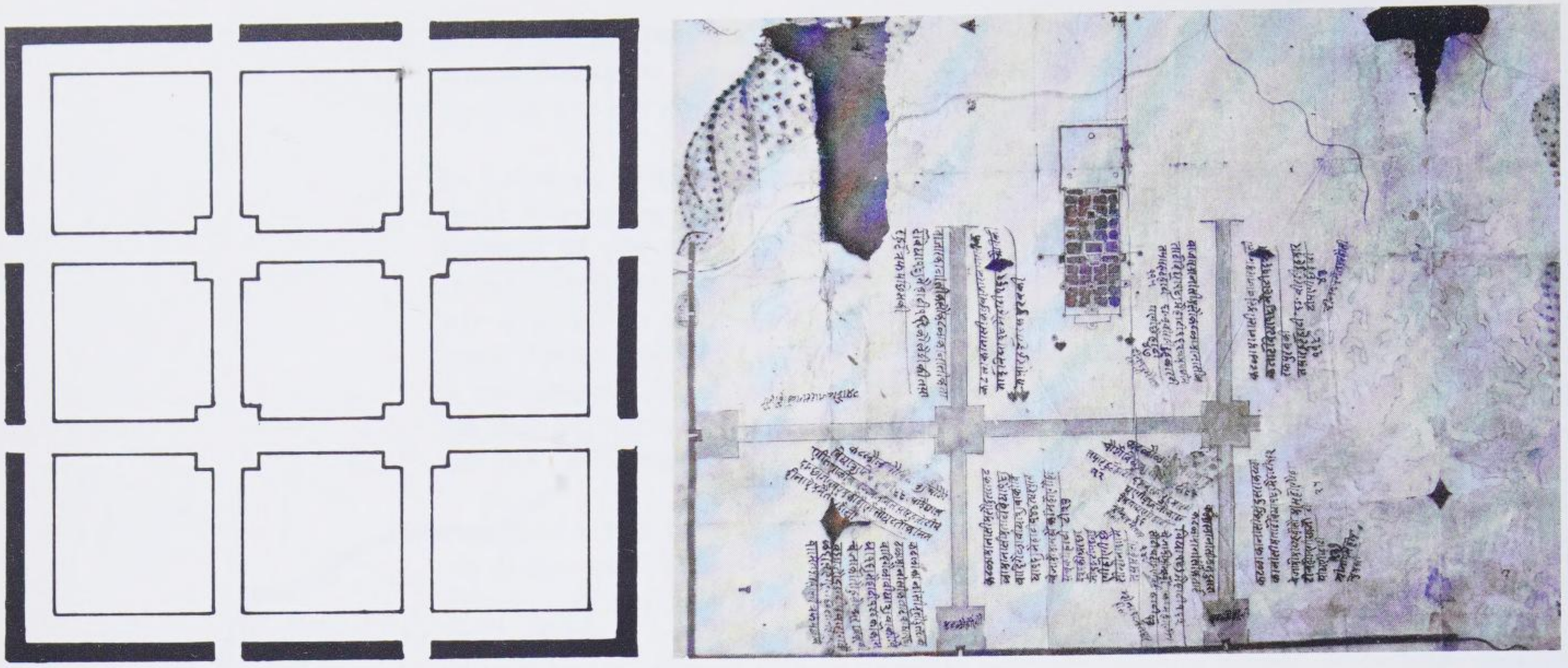
It differs from those precedents in adapting the pattern which they establish to a regular grid. The other Rajput capitals are informally planned, sometimes making the pattern difficult to discern: the streets meander with no apparent direction or design. This informality is mostly a consequence of the slow growth of the cities over long periods, but occasionally one suspects a deliberate attempt at a picturesque effect. At Bundi the final bend in the bazaar conceals the palace from view until one is almost underneath it, and this sudden view is much more arresting than a gradual one would be; Tod aptly calls this view the 'coup d'œil' of the Bundi palace, and ranks it 'perhaps the most striking in India'.[18] In Jaipur there are no examples of such picturesque informality; the laying out of the whole city in a brief period invited the adoption of a regular plan.

Most of the streets are perfectly straight; they intersect at right angles, forming a grid which is just over two miles across at its widest point. This grid is oriented not quite to the cardinal points; it is turned clockwise by some fifteen degrees in order to accommodate a natural ridge. The major routes divide the city into nine almost square, almost equally sized wards.

The qualifications in this account suggest that Jaipur represents an imperfect execution of a still more regular original design; and indeed this is known to be the case. Jaipur is exceptional among Rajput capitals in that original design plans survive.[19] A few of these plans show a square subdivided by an even grid into nine equal squares [210]. They show few details but they indicate clearly that the design, as first conceived, was simpler and more regular than as executed.

Some of the imperfections in the city as built are trivial: the major roads, for example, vary slightly in width though most are about 108 feet broad.[20] Others such as the turning of the plan through fifteen degrees, indicate the architects adapting the plan to the site. Others again, such as the slightly unequal size of the wards, are more noticeable, but still do not represent any considerable departure from the original conception. There is, however, one difference between the design and the execution which represents a fundamental change: the north-west ward was transferred to the south-east corner of the city, making the shape of the plan as a whole asymmetrical rather than square. This change was dictated partly by the site and partly by strategic necessity.

In its exposed position on a plain, Jaipur would be indefensible if subjected to



210. Early designs for Jaipur. Left – the vision: the 3 × 3 square grid common to several of the earliest design plans of the city. Right – encountering reality: a progress report showing portions of the city wall and the roads defining the four south-westerly wards already constructed, and the position within the palace *sarahad* of the original garden, Jai Niwas. Top left, obstructing construction of the north-west ward, is the final spur of the range of hills linking Jaipur with Amber. (The irregular dark patches are holes in the fabric on which the plan is painted.)

any prolonged attack. It was therefore imperative to have a further place of retreat close at hand (Jai Singh's boldness was not without limits). For this reason, as a preliminary to moving his capital onto the plain, Jai Singh built Nahargarh, the fort which crowns the ridge to the north-west of Jaipur. The siting of Nahargarh was not abitrary: the western ridge is a continuation of the hill on which the palace of Amber and its higher fort, Jaigarh, are built; and Nahargarh is linked to Jaigarh by a line of fortifications, thus making the entire ridge much more defensible and providing access from Nahargarh to the gun foundry in Jaigarh. So the position of Nahargarh was dictated by that of Jaigarh. In turn it dictated the position of Jaipur: in order to be an effective place of retreat it is necessarily connected to the city by a line of fortifications and the city necessarily touches the hillside, to prevent an enemy force coming between the city and the fort. The hillside, by cutting into the north-west corner of the city, offers an escape route from it, but also necessitated the described radical alteration to the plan of the city.

Another constraint was the position of the lake which formed a part of the pleasure garden around which the city was built. This lake (now mostly filled in) lay close to the hillside. In the original design it fell outside the main block of the city; but we know that it was Jai Singh's express wish that the old garden should be included in the city,[21] and this lake became the tank of the palace garden. Assuming that the central position of the palace within the city was a principle not to be abandoned, the position of the lake determined the position of the whole city and again brought it into collision with the hillside. The displaced ward was relocated in the south-east rather than anywhere else, probably in order to include within the city a previously existing village.

A notion popular with those who have sought to identify the source of the plan of Jaipur is that the city is based on the *prastara*, a plan recommended by the *silpa-sastras*.[22] In fact it resembles the *prastara* neither in conception nor in execution. Most importantly – though this is by no means the only difference – the *prastara* must have three, five or seven major roads within the outer ring road;[23] the plan of Jaipur has four such roads as it was originally designed, and six as it is built. Certainly the *prastara* is a grid, but then so are most of the other plans recommended by the *silpa-sastras*. The *Arthasastra* recommends a square plan divided into wards by six main roads, three running east–west and three running north–south.[24] The

Manasara offers a choice of plans for both villages and towns but all of them are grids.[25] The fifteenth-century theorist Mandan also recommends a grid plan, of unspecified design.[26]

In view of the unanimity of the *silpa-sastras* on this point, it is surprising that so few Indian cities are planned on a grid; the discrepancy between precept and practice is a measure of how lightly the *silpa-sastras* were usually taken by builders of secular architecture. It is true that the use of a grid plan at Jaipur is not entirely without precedent: some use of a grid system is made in the earliest known cities of India – those in the Indus valley, notably Mohenjo-Daro and Harappa. But these cities were built some three millenia before the Christian era and so at least three and a half millenia before the *silpa-sastras* were composed. By the same token they could not have been sources for the builders of Jaipur, as by the eighteenth century they had long been abandoned and buried.

The dissimilarities between the plan of Jaipur and the *prastara* are recognized by one writer, who discounts altogether the influence of the *silpa-sastras* on the ground that there is positive evidence for the presence of only one architectural treatise in the library of Sawai Jai Singh.[27] This argument is misleading: architectural tradition in India depended on oral instruction between successive generations of craftsmen, and not on book-collecting by kings. And it is clear that the builders of Jaipur did depart from usual practice and pay attention to the *silpa-sastras*. The plan of Jaipur is not a *prastara*, nor does it correspond closely with any of the other plans recommended specifically for towns by the *silpa-sastras*; but in its original conception it does correspond precisely with a plan called *pitha*, the third of the *vastupurusha mandalas* which the *Manasara* offers for general use.[28] The *pitha* is a square subdivided by evenly spaced lines into nine smaller squares. This is the elementary but distinctive form found in the earliest design drawings for Jaipur [210]; the differences between the *pitha* and the plan of Jaipur as it exists were determined, as explained, by the exigencies of the site.

The use of the *pitha* rather than one of the plans specifically recommended for towns did not involve taking liberties with the *Manasara*. In its definitions of the town plans, the *Manasara* allows for some flexibility; indeed so much that some almost cease to be definitions.[29] Furthermore, the recommended town plans are themselves based on the *vastupurusha mandalas*, as the *Manasara* explains;[30] they modify the *mandalas* by the addition of much complicated detail. The planners of Jaipur have ignored that detail and returned to the original, simple form.

The identity of those planners is another issue which preoccupies writers on Jaipur. Some contemporary accounts of the building of Jaipur refer to a Bengali pundit, a minister of Jai Singh's, called Vidyadhar.[31] It is clear from these accounts that Vidyadhar played an important part in the implementation of the plan. Jai Singh is described as explaining his wishes to Vidyadhar; and elsewhere Jai Singh advises a merchant, whom he has invited to settle in Jaipur, to 'act according to the wishes of Vidyadhar'.[32] It seems that people building houses in the city had to submit plans to Vidyadhar for approval – the means by which the uniformity of the city was ensured – and there are records of his having been rewarded in connection with several building projects, including the construction of the Chandra Mahal.[33] But though it is certainly possible that he was responsible for the design of the city, there is no firm evidence to suggest that his role was anything but executive.

There is even less reason to suppose that Jai Singh himself was responsible. This idea, favoured by some,[34] is purely romantic. Two arguments are advanced in favour of it. First, it is pointed out that the contemporary poet Girdhari describes Jai Singh giving instructions to Vidyadhar:

Sawai laid the foundation of Jaipur . . . He said to Vidyadhar that a city should

> be founded here. Jai Niwas should come within this city, this is my wish. There should be many cross-roads with shops on them . . .[35]

To infer from this that the design was Jai Singh's own is extravagant extrapolation: the account describes a client giving his brief – and a somewhat incomplete brief at that – and makes no mention of the crucial grid of nine squares.

The second argument is based on Jai Singh's well-documented activity as an astronomer. Jai Singh was a skilled and prolific astronomer; instructed by the Emperor Muhammad Shah to revise the Hindu calendar, he built five observatories in northern India.[36] The largest and finest of these is the Jantar Mantar in Jaipur; the others are in Delhi, Benares (on the roof of his ancestor Man Singh's palace on the Ganges), Ujjain and Mathura (this last has disappeared). The instruments of these observatories were designed by Jai Singh himself. But the representation of the order of Jaipur as a sort of sublunary reflection of Jai Singh's interest in the harmony of the heavens[37] is more imaginative than sensible. Even more fanciful is the concomitant idea that the ordered plan reflects Jai Singh's desire for peace and harmony between men. The order of the plan of Jaipur is a function of the speed of its construction: it is only to be expected that a city conceived and built in a period of less than ten years should have an ordered plan, whatever the interests of its patron.

If such order was uncommon in Indian towns before the building of Jaipur, it subsequently became less so in the Rajput states, and this change perhaps marks the influence of Jaipur on Rajput town planning. Though the streets are narrower and less straight than those of Jaipur, the use of a grid system is evident in a portion of the late eighteenth century *taleti* of Jaisalmer (the portion to the north-east of the fort). Of the same date are the villages of the Paliwal Brahmins outside Jaisalmer, and some of these too, especially Kuldhara, are regularly planned – a very rare feature amongst north Indian villages. In 1821 Tod visited a new town, Jhalra-Patun near Kota:

> The city is nearly a square, surrounded by a substantial wall and bastions, well furnished with cannon. The ground plan is simple, being that of the Indian *chowpun* or cross, with two main streets intersecting each other at right angles, and many smaller ones running parallel to them. The main street is from south to north.[38]

Tod refers to 'the Indian *chowpun*' – more correctly called *char rasta* – as though it were traditional; but until the building of Jaipur it was traditional only in precept and not in practice.

Some other features of the city of Jaipur, apart from its plan, also follow the directions of the *Manasara*. The bazaars are one example [211]. The *Manasara* states that shops should be situated on the major streets, that they should consist of the ground floor of the houses, which are to be of uniform design, and that the streets should be flanked by broad footpaths and 'be connected with the palace of the Maharaja'.[39] The bazaars of Jaipur satisfy all these requirements. The shops were among the first buildings to be erected in the city and were built under state control, thus ensuring a uniformity of design that gives emphasis to the regularity of the plan.

Unlike the plan, the shops have a source in built architecture as well as in the *silpa-sastras*, for in design they imitate exactly the Moti bazaar in Chitor, built in the mid-fifteenth century or earlier [212]. Each shop originally consisted of a single cell and each row of shops had an arcade running along the shops' fronts. The arcades were essential to provide shade for the pedestrians. In most of the Rajput capitals the streets are narrow and the buildings which flank them are high, so that the streets are perpetually shaded; the broad streets of Jaipur, flanked by buildings of few storeys, have no such protection from the sun (and even the avenues of

211. Jaipur; shop fronts on a main bazaar (1725–34)

212. Chitor; the Moti Bazaar (c. 1450)

trees have little effect) [*xxi*]. The arcades provided shaded access to the shops. But in recent times, the shopkeepers of Jaipur have been allowed to enclose the portions of arcade immediately in front of their shops,[40] thus pushing their customers into the hot street.

The roofs of the arcades, which could be reached by means of staircases from the street, served as terraces from which the public could watch royal processions or other spectacular events. This ingenious provision of public space at two levels is unique in Rajput city architecture.

Apart from the shops, another feature of the city which fulfils directions of the *Manasara* is its social arrangement. The *Manasara* directs that the region of the city

in which any person should live depends on his caste or profession. This distribution is explained in great detail, with precise definitions of professions and districts; broadly speaking it is asserted that those of higher caste should live in areas close to the centre of the city and those of lower caste professions should live on the periphery.[41] Other *sastras*, including the *Arthasastra* and Mandan's *Rajavallabha*, give similar directions.[42] The distribution of people according to caste or profession is known as the *mohalla* system and, unlike other arrangements urged by the *sastras*, was adopted almost universally in Indian towns and villages.

In urban architecture the smallest social unit was the *haveli*, or courtyard building [6]. Typically, a *haveli* housed four or five families who shared the courtyard and other amenities; the ground floor was used for business purposes (especially for shops) and the upper – and sometimes rear – portions for residence. Several *havelis* formed a *mohalla*, all of whose residents were of the same caste. This social arrangement ensured the segregation of people of different castes in accordance with caste taboos, and it also provided a measure of privacy unusual in an urban environment, as non-residents were actively discouraged from entering a *mohalla*.

An obvious consequence of this arrangement was that shops selling similar goods were grouped together and not scattered about the town. Traces of the *mohalla* system are discernible to varying degrees in all of the Rajput capitals. Rousselet noticed it in Udaipur in the mid-nineteenth century:

> In one [street] live all the shoemakers, in another the turban weavers: here every shop is a regular arsenal of swords, guns, and shields; and there brocaded robes and jewellery fill the stalls. Each business and each trade occupies a quarter by itself and every one seems to ignore the competition of his neighbour.[43]

This structure is less evident in Udaipur today, though traces of it survive: for example, the silver shops are found together in a single bazaar. In Jaipur the system has survived much more extensively and has adapted itself to modern conditions: shops selling electrical goods are grouped together in a row, as are others selling vehicle tyres, in just the same way as shops selling more traditional commodities such as spices and cloth.

Unique in India, the city of Jaipur is in any terms remarkable. The enterprise was ambitious and, despite the alterations in the design necessitated by the site, successful: the orderliness and unity of conception of the city are striking and unexpected. It is therefore surprising that the buildings of the palace complex should be so weak in design. The design of the city seems to promise a new phase of Rajput architecture: inventive, ordered and confident. But the palace buildings do not share this promise; on the contrary, their derivative and irresolute designs show that the Rajput style was in fact already in decline.

The earliest and most important part of the palace is the Chandra Mahal [17]. Like the Juna Mahal at Dungarpur, it has seven storeys – a number presumably chosen for its auspicious associations. On the ground floor, on the north side, is the broad veranda called the Pritam Niwas, from which a marble channel runs into the formal garden. This arrangement echoes the Sukh Niwas of the palace at Amber, and is one of several features which suggests an intention to re-create the Amber palace, much as the Udaipur palace sought to re-create Kumbha's palace at Chitor.

The main portion of the ground floor of the Chandra Mahal is occupied by a hall of audience. This is a small and rather low peristyle hall with the by now familiar cusped arches. Some variety to these last is provided in the rear portion of the hall by the use of trefoil arches, which may be termed 'Buddhist' because of their similarity in form to the trefoil niches of Gandhara and Pala Bengal.

213. Jaipur Palace; the south and east fronts of the Chandra Mahal (c. 1727–34)

The next two storeys are properly speaking one: a single high hall is expressed on the outside as two storeys, which explains why those who attempt to name the seven storeys of the palace can muster only six names. This hall, the Sukh Niwas, was extensively remodelled in the Victorian period. The next two storeys, the Rang Mandir and the Sobha Niwas, repeat the plan of the Sukh Niwas, but the top two storeys, the Chavi Niwas and the Mukut Niwas, are smaller in plan. The Chavi Niwas is a *sheesh mahal* and consists of three adjoining chambers, all richly decorated with inlaid mirror-work. The Mukat Niwas is a crowning, open pavilion built of marble; the arrangement of its domes – a *bangaldar* roof flanked by round domes with which it shares a common eave – is an imitation of the Jess Mandir in the Amber palace [124].

All of these storeys have projecting balconies on the exterior [213]. Because all the storeys follow the same rhythm of advance and recess, the balconies come immediately above each other in continuous vertical groups, just as they do on the palaces of Chitor and Udaipur [111]. But whereas in those earlier palaces the narrowness of the balconies gives the groups the appearance of towers projecting from the facade, here they are wide so that the whole facade seems to alternate between two planes. This would be a powerful effect were it not that the balconies are also shallow – so that the two planes are not far apart – and they are linked horizontally by continuous straight balustrades which flatten the facade again and cancel what small effect the balconies do achieve. Furthermore, the repetitive rhythm of the balconies, their monotonous form, and the multiplicity of their openings, all contri-

bute to make the exterior cluttered and wearisome. The features are too small for facades of such size; the balconies and their *chajjas* litter rather than define the architectural form.

An exceptional and unfortunate feature of the Chandra Mahal is its symmetry. The picturesque quality achieved by the irregularity of the majority of Rajput palaces is here eschewed, but nothing is offered in its place. The palaces of Bundelkhand are of course symmetrical, but there the symmetry is essential to the dynamics of the designs. Here it is a reflection of the new order established in the design of the city, but it is otherwise gratuitous; the regular bulk of the Chandra Mahal lacks both grace and interest.

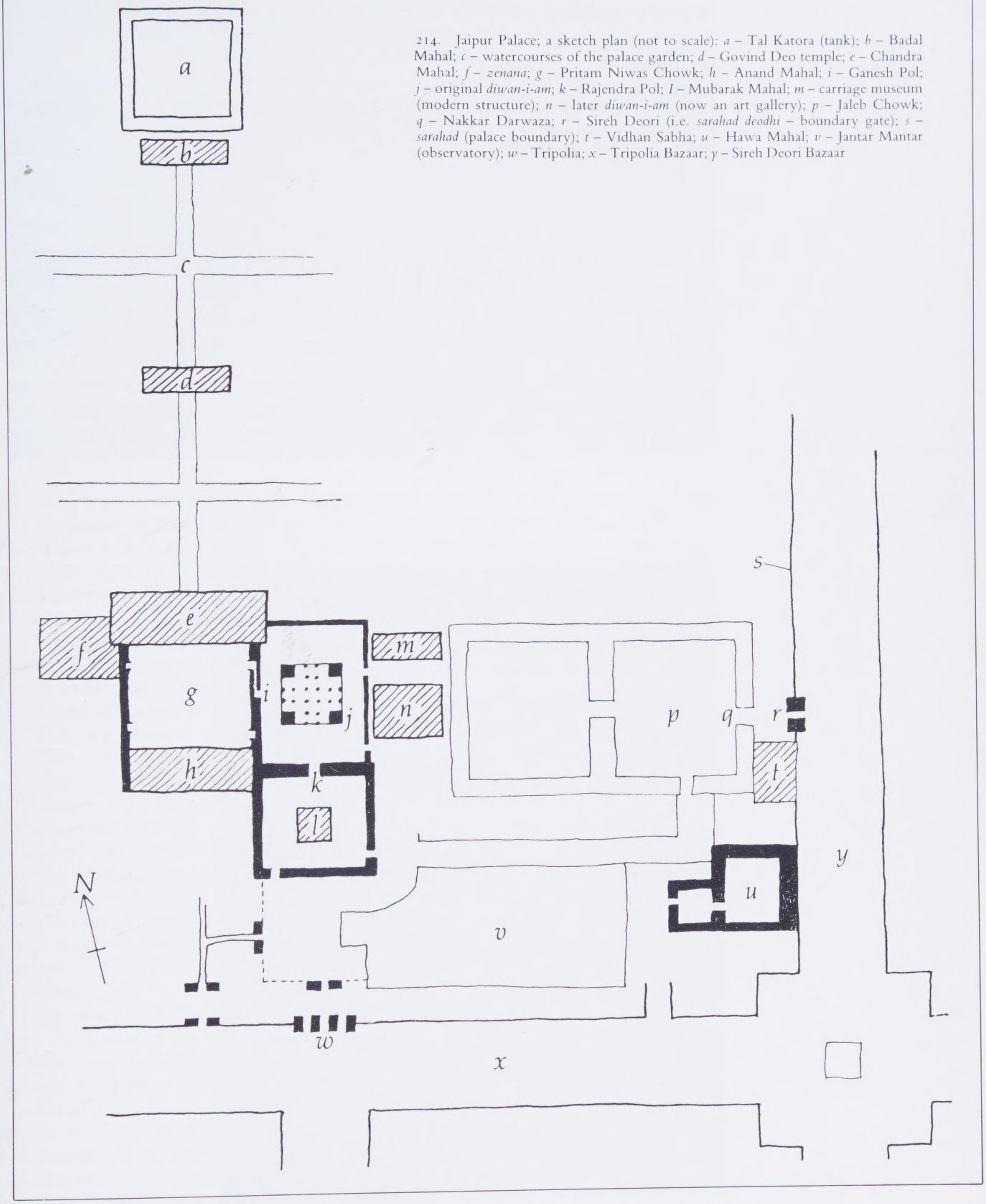
However, the aspect of the Jaipur palace which most makes it exceptional within the Rajput school is the relation of its parts. The more usual Rajput *garh* palace is an integrated mass of palace and fortification: the various parts of the palace, though of different date, append to each other, and their fortifications are contiguous. Originally the Jaipur palace consisted only of the Chandra Mahal, a single mass, and thus far it accorded with Rajput tradition. But its fortifications are separate: the palace compound is surrounded by a high wall, the *sarahad* [214]. And the major structures built in addition to the Chandra Mahal do not append to it but stand in separate courtyards. The Jaipur palace in its complete state therefore conforms much more closely to the Mughal type of palace, with separate buildings distributed over a fortified campus [42]. This is the first instance of Mughal architecture influencing the overall planning of a Rajput palace – precisely that feature which in earlier buildings affords a major point of distinction between the two styles.

One of these later courts of Jaipur is Jaleb Chowk which housed the palace guard. The court of the same name and function at Amber is firmly attached to the palace – it is an extension of it [116]. But the Jaipur Jaleb Chowk is quite separate [214], and so only its name represents a re-creation of Amber.

Another such court is that enclosing the large hall of audience immediately to the south-east of the Chandra Mahal. Now known locally as the Sarvato Bhadra, or Diwan-i-Khas [36], this hall must originally have been a *sabha niwas* or *diwan-i-am*. The building now called the Diwan-i-Am (the hall slightly to the south-east again, at present serving as an art gallery) was a much later addition, built by Maharaja Sawai Pratap Singh (1778–1803), and it was presumably the building of this second *diwan-i-am* which caused the demotion of the first to *diwan-i-khas*. (The original *diwan-i-khas* was the hall on the ground floor of the Chandra Mahal, as Rousselet records.[44])

Though of an imposing size, the earlier *sabha niwas* and the court which surrounds it are weak in design. It is not so much the tedious pink wash which creates this effect as the meretricious white line decorations applied on top of it. In white outline, niches are drawn on the *sabha niwas*, and entire galleries on the flat walls surrounding the court [215]. This is an architecture in which functional forms are reduced to symbolic drawing, an architecture which deliberately avoids plasticity by reducing to two dimensions and to outline those forms which would most create it. Even the cusps of the arches are feeble: on most of the arches only the outer faces are cusped and the main body is a smooth curve, so that the arch seems to be assembled from unsubstantial planes rather than being a solid form; and on all of them the cusps are shallow so that from any distance the overall shape is indistinct.

Except for these weaknesses, there is little in the design or the plan to distinguish the *sabha niwas* and its court from Mughal architecture. The majority of the forms here used, though by no means of Mughal invention, are nevertheless those which were adopted in Mughal architecture; and the planning and massing of the hall, though a little clumsy, echo the pavilions of the Delhi Lal Qila [40] rather than Rajput precedents such as the Amber Diwan-i-Am [3]. Only the *jarokhas* projecting



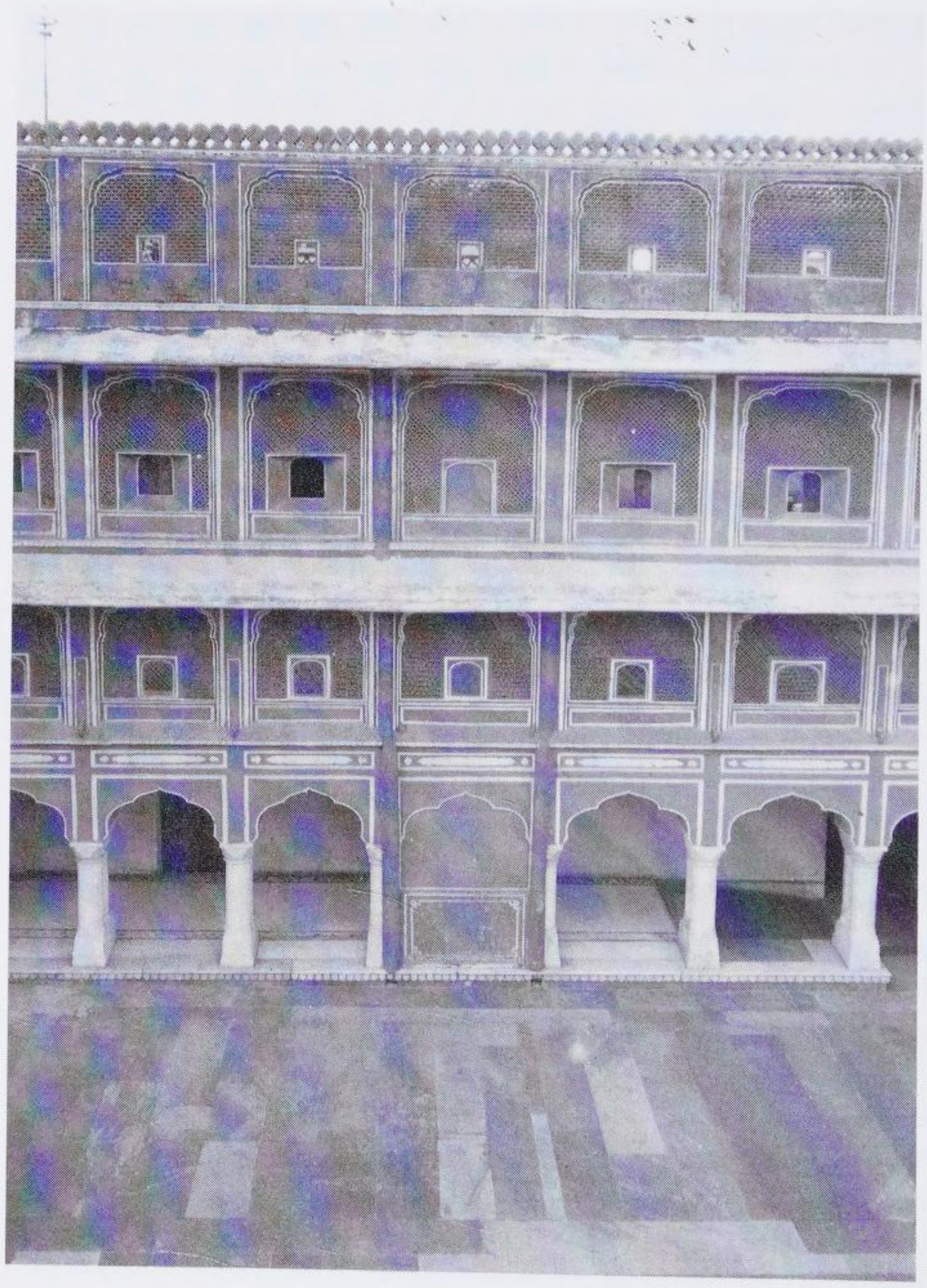
214. Jaipur Palace; a sketch plan (not to scale): *a* – Tal Katora (tank); *b* – Badal Mahal; *c* – watercourses of the palace garden; *d* – Govind Deo temple; *e* – Chandra Mahal; *f* – *zenana*; *g* – Pritam Niwas Chowk; *h* – Anand Mahal; *i* – Ganesh Pol; *j* – original *diwan-i-am*; *k* – Rajendra Pol; *l* – Mubarak Mahal; *m* – carriage museum (modern structure); *n* – later *diwan-i-am* (now an art gallery); *p* – Jaleb Chowk; *q* – Nakkar Darwaza; *r* – Sireh Deori (i.e. *sarahad deodhi* – boundary gate); *s* – *sarahad* (palace boundary); *t* – Vidhan Sabha; *u* – Hawa Mahal; *v* – Jantar Mantar (observatory); *w* – Tripolia; *x* – Tripolia Bazaar; *y* – Sireh Deori Bazaar

from the south wall of the court employ forms which were less often adopted in Mughal buildings and which recall an older Hindu heritage. The rest varies from the Mughal style only in a certain rococo quality, created by the greater dependence on applied decoration to provide variety. The revival of the Sanskrit term *sabha niwas* or *sarvato bhadra* does nothing to repudiate this Mughal appearance.

There is a temptation to account for this influence by referring to the long and close association between the state and the Mughal Emperors, an association established by Sawai Jai Singh's ancestor, Raja Bihari Mal (1548–74). For almost two hundred years the rajas of Amber had been loyal subjects of the emperors. Some, notably Raja Man Singh (1592–1615), served as generals in the imperial forces, often leading them against other Rajput clans.[45] Others provided wives for the emperors: Bihari Mal's daughter, Mariam Zamani, became the mother of Jahangir. Of course other Rajput states had dealings with the Mughals, but none was as closely allied with them, and none lay as close geographically to the Mughal capitals. That the architecture of this state should have been most affected by Mughal architecture is not then surprising.

But such a reference to political relations is on its own insufficient to account for the cultural influence. It does not explain, for example, why the marked degree of Mughal influence evident in the Jaipur *sabha niwas* was reached so late. For this first really overwhelming influence of Mughal architecture on the Rajput school – indeed it is not an influence so much as an abandonment of the Rajput style

215. Jaipur Palace; the west range of Diwan-i-Am Chowk (c. 1735)



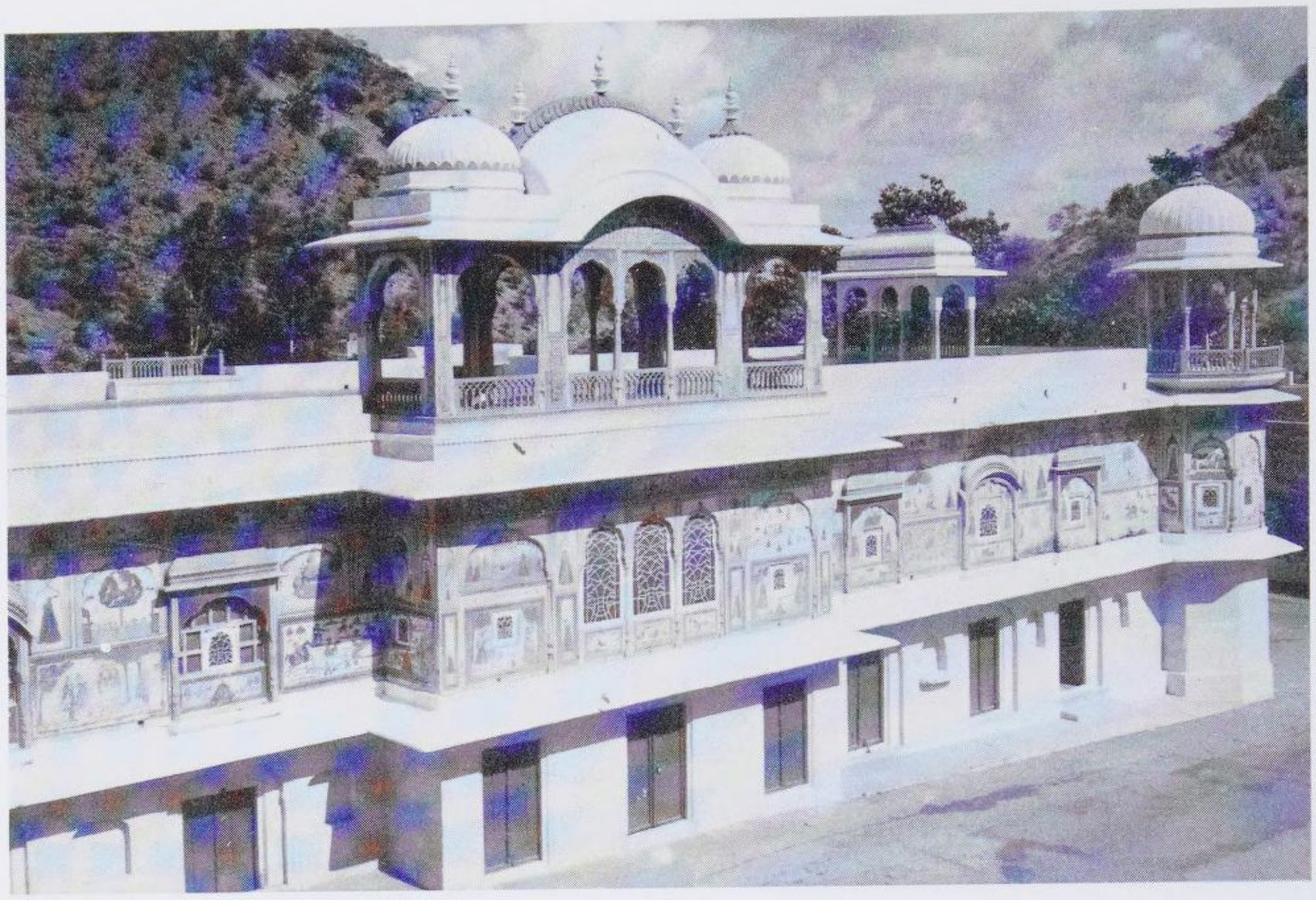
216. Jaipur Palace, the Badal Mahal (c. 1750)

and a wholesale adoption of the Mughal style – occurred only after the beginning of the decline of the Mughal Empire. This suggests that the introduction of Mughal ideas was in fact due less to political relations than to the movement of craftsmen. For just when Jai Singh founded his city, craftsmen trained in the Mughal style would have been finding themselves without employment and would readily have migrated to his flourishing state.

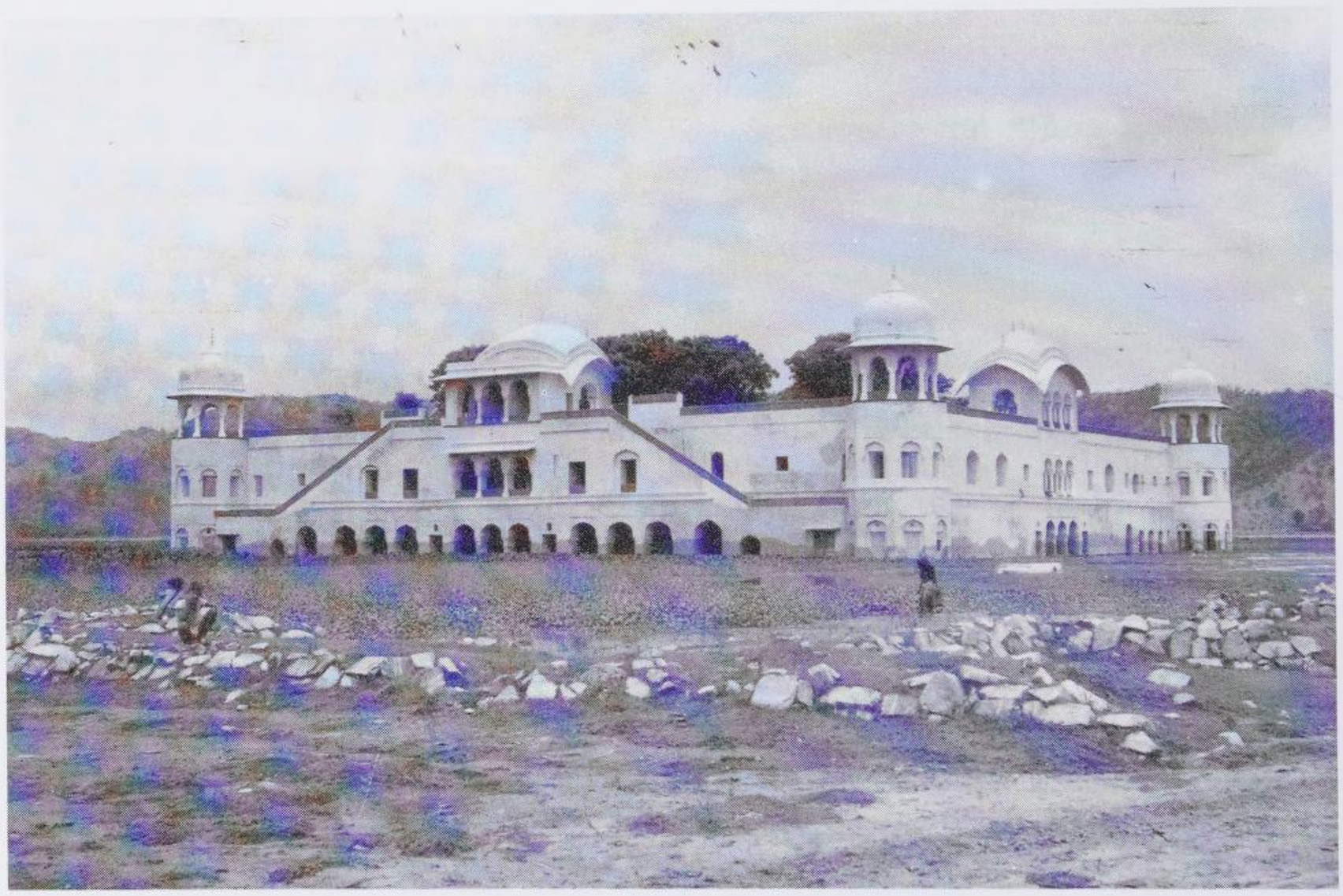
The palace's formal garden, to the north of the Chandra Mahal, marks the site of the original hunting ground around which the city was founded [17]. This garden, with its terraces and axial waterways, and the disposition of the pavilions within it, are again Mughal in style.

The two principal pavilions are the Badal Mahal, overlooking the Tal Katora, and the Govind Deo temple, midway between the Badal Mahal and the Chandra Mahal. These have been identified by some as the original hunting lodges.[46] Both show signs of extensive remodelling which *prima facie* supports this identification: the exterior massing of the Badal Mahal is clumsy compared with the ingenious internal arrangements and is clearly by a different hand [216]; and from the design of the Govind Deo temple it is evident that it was built as a residence and only later converted into a temple. However, even the older parts of these structures are in a late style: the cusps on the arches in the Badal Mahal, for example, sprout into leaves like those of Safdar Jang's tomb in Delhi (c. 1750). In view of their late style it is unlikely that the pavilions do more than mark the sites of the original hunting lodges.

Outside the city walls are various other palace buildings. To the south-east on the Agra road is the Sisodia Rani Mahal, built for the Mewari wife of Sawai Jai Singh [217]. To the north-east numerous buildings line the road to Amber, of which the most important is the Jal Mahal, a pleasure palace built in the middle of the artificial lake, Man Sagar [218]. Compared with the *sabha niwas* and the palace garden, these buildings show a greater dependence on conventional Rajput design, but it is uninspired. As in the Chandra Mahal, the symmetry of plan and massing is the dominant feature, and again a somewhat gratuitous one: it robs the buildings of that traditional Rajput picturesque interest and does not succeed in imbuing them



217. Jaipur, the Sisodia Rani Mahal (c. 1753)



218. Jaipur; the Jal Mahal (c. 1735)

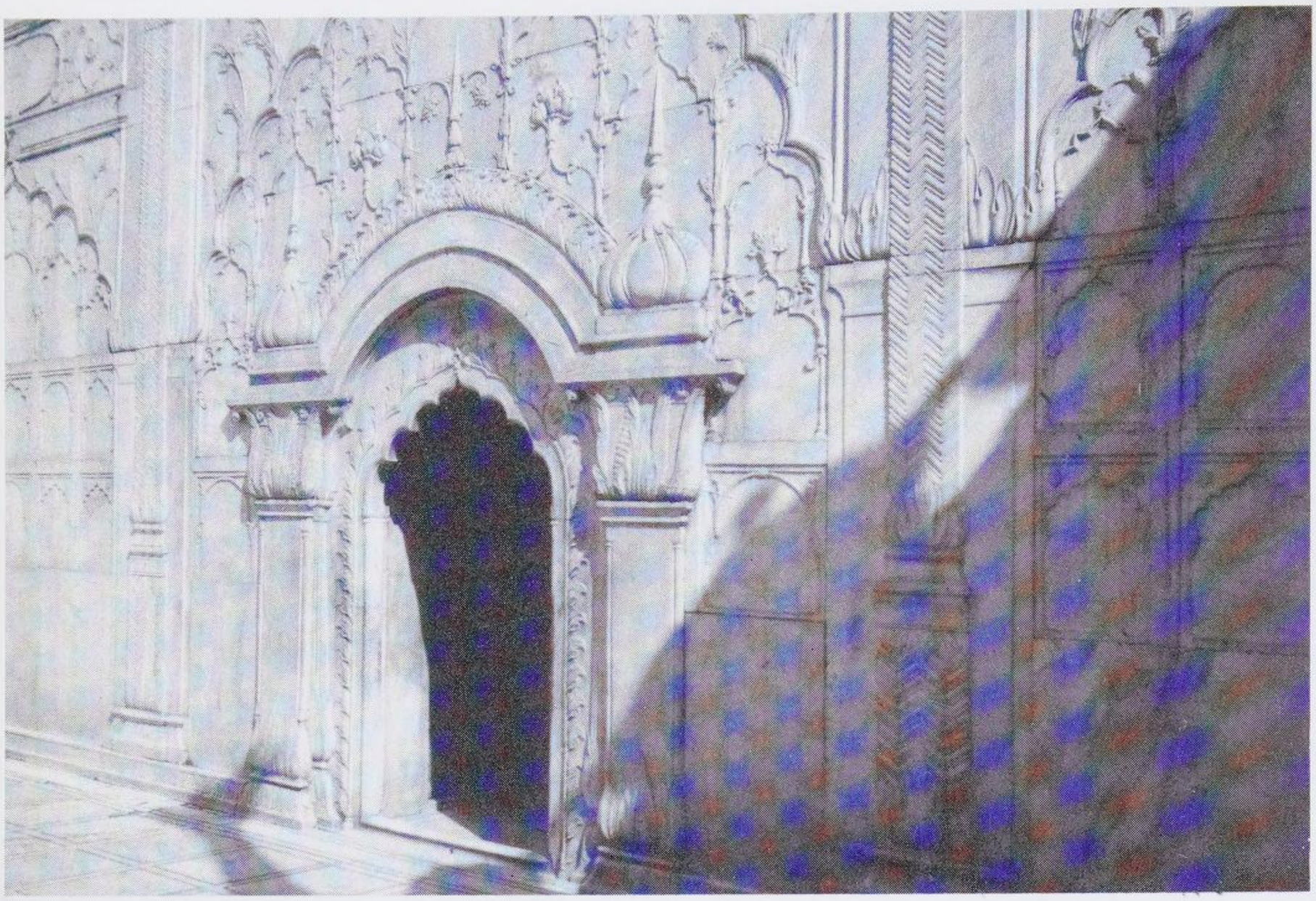
with the harmony and elegance of more carefully calculated proportions. In addition, some of the architectural features have been made redundant: in earlier Rajput buildings the *chattris* and *bangaldar* roofs are integral parts of the composition, but in these buildings such forms are decoratively sprinkled over the top of a dull regular block. A vocabulary of forms has become a repertoire of decorations, and not a very broad one at that.

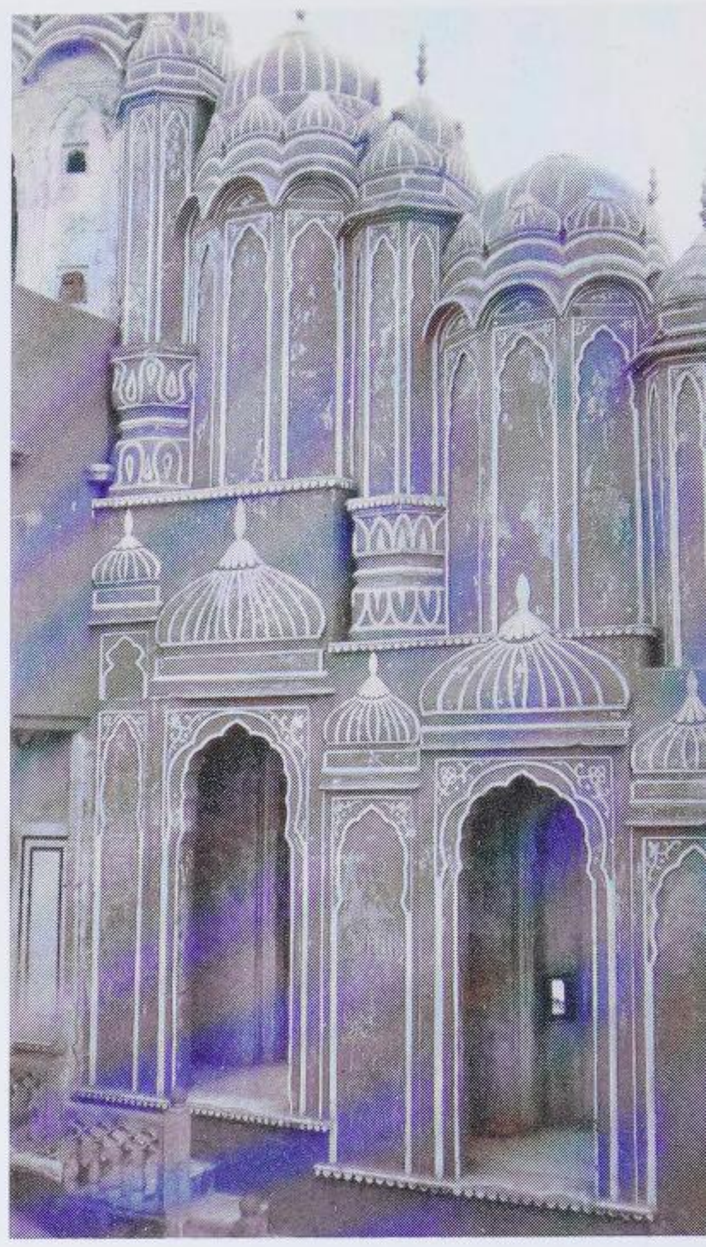
Back inside the city, some of Sawai Jai Singh's successors added to the City Palace. His elder son, Ishwar Singh, added the Ishwar Lat, a tall and undistinguished tower. The most famous addition is the Hawa Mahal, built by Pratap Singh in 1799.

It is often said of the Hawa Mahal that it is only a facade.[47] This is not true – it consists of two courtyards with residential ranges [214] – although the impressive and bizarre eastern facade performs a different function from the rest of the palace: it is a *purdah* screen through which the women of the *zenana* could watch processions in the public street and catch the breeze (the name Hawa Mahal means 'palace of wind') [219]. The screen is in some respects reminiscent of the Chandra Mahal, with its pyramidal outline, overall symmetry and the close grouping of small features [213]; and a similar building of the same name and function was added to the City Palace in Kota in the mid-nineteenth century;[48] but otherwise this fantastic structure does not relate obviously to the buildings of its age. The forms employed are familiar enough, but the bays are crammed together, piled and multiplied so that they combine to form a larger version of themselves, in a manner strikingly reminiscent of a temple *sikhara* [47] – revealing how tenacious is the grip of the Hindu tradition, even at this late date and amid all the Mughal ideas.

The screen of the Hawa Mahal represents one further step in the decline of the Rajput style because the architectural forms, already deprived of plasticity in the *sabha niwas*, are here also reduced in size so that they become little more than symbols of themselves. The inner face of the screen especially has no architectural features; it has small-scale, shallow relief representations of architecture, picked out in white

219. Jaipur Palace; the eastern front of the Hawa Mahal (1799)





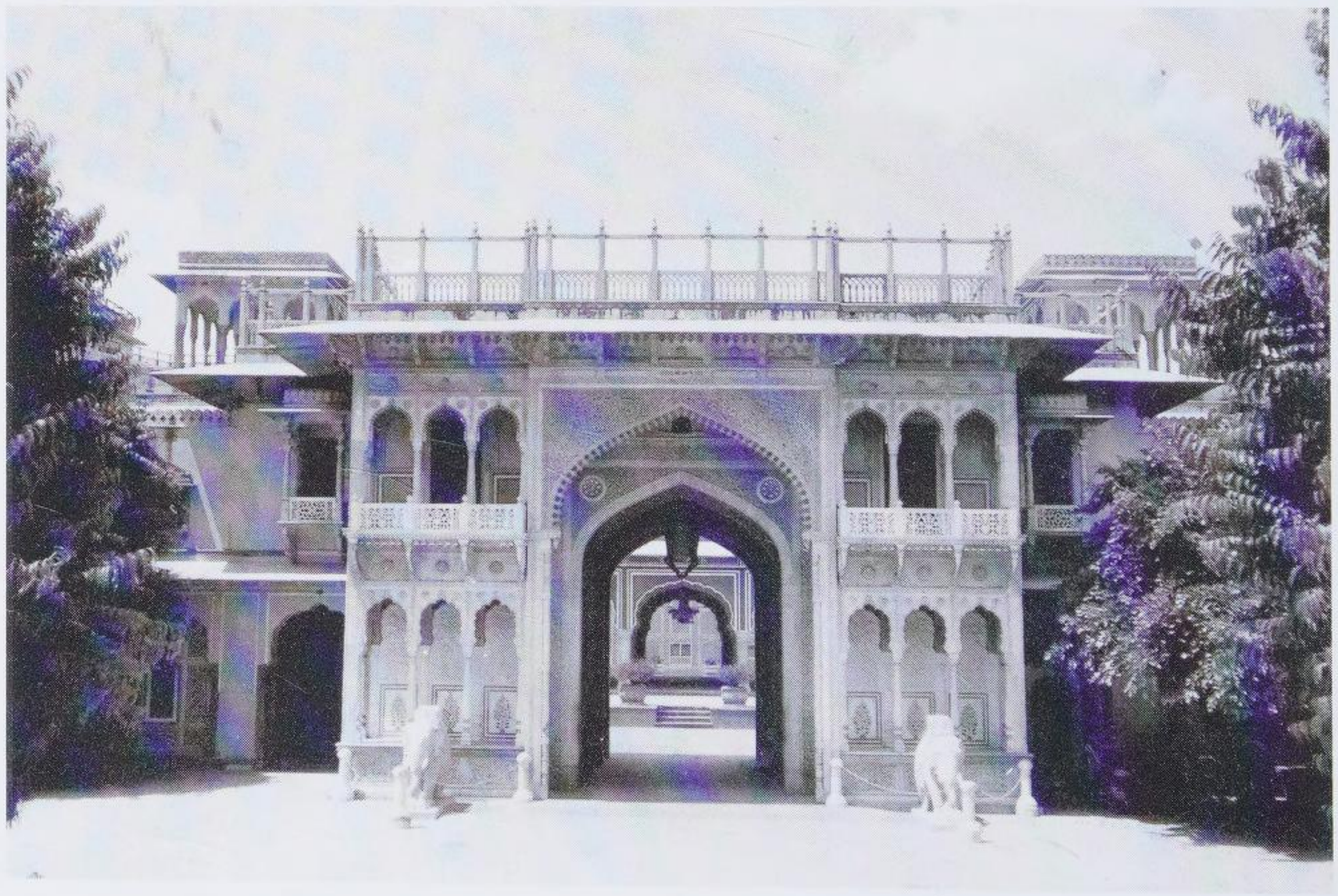
220 (right). Jaipur Palace; part of the inner face of the east front of the Hawa Mahal

221. Delhi; the entrance of the Moti Masjid in the Lal Qila (c. 1660)

outline lest one should miss them [220]. The Mughal style had reached the same point of decline with the building of Aurangzeb's Moti Masjid in the Lal Qila at Delhi [221].

The steadily increasing Mughal influence in the eighteenth century is only one aspect of the decline of the Rajput style. In itself it represents a decline because it diminished the independence of the Rajput style and led to the loss of some of its most interesting features. It involved, for example, a frequent rejection of the folk art basis of the

222. Jaipur Palace; the Rajendra Pol (c. 1880)



applied decoration – as seen in the older *garh* palaces – in favour of refined Mughal-style patterns such as those in the Pritam Niwas. It involved too a discarding of archaic and unashamedly Hindu forms in favour of those of Mughal invention, and a concentration on those forms which the two styles had always had in common. But still the styles remain distinct: despite the extensive Mughal influence on the details of the Chandra Mahal, for example, no Mughal palace is planned or massed like it; it could not be mistaken for a Mughal building. The *sabha niwas* and the palace garden, by adopting the Mughal style thoroughly, are exceptional and not typical of their period.

And the more important aspect of the decline is not this Mughal influence but the weakness of the designs of the Jaipur palaces. In most of them the massing is dull, and the details lack conviction and depth. The finest buildings of the palace are the Rajendra Pol and the Mubarak Mahal, but these belong to a much later period: to that revival of the style stimulated in the late nineteenth century by the State Engineer, Sir Samuel Swinton Jacob [222, 244].[49] In these buildings, at last, are found a treatment of space, and a depth and variety of form, which complement the intellectual rigour of the design of the city.

TEN

DIG AND BHARATPUR:
Rajput Mannerism

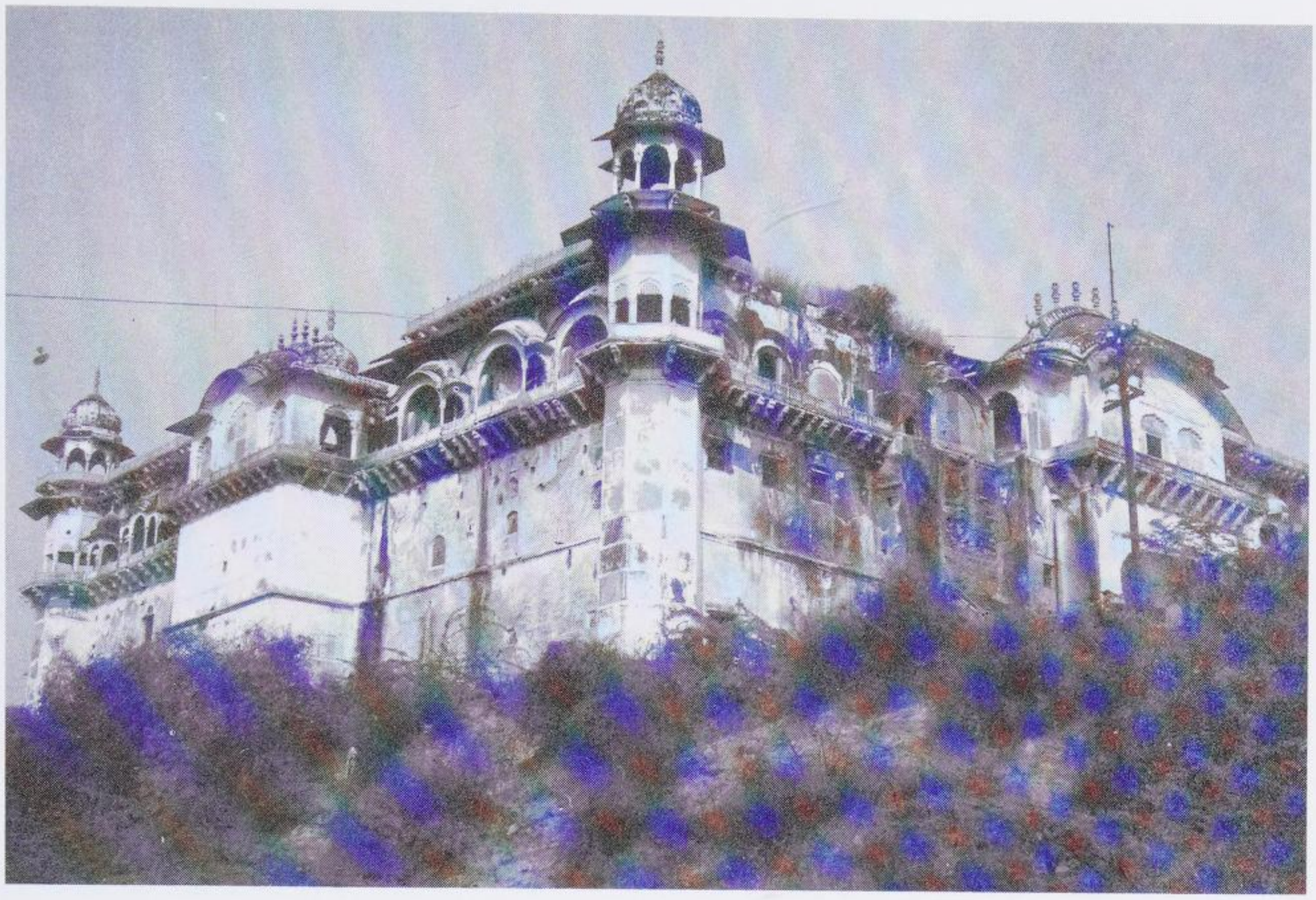
Aurangzeb waited until he had been on the imperial throne for ten years, and until after the death of Mirza Raja Jai Singh of Amber (the powerful raja who had helped him to acquire it), before unfolding his plan for the suppression of the Hindu religion. In 1669 he ordered the widespread destruction of temples, and in 1679 he reimposed the *jizya* – the Islamic tax on heathen worship. Among the Rajput rajas, these measures led to a loss of confidence in the empire, not only as an enterprise in which they might take part, but even as an authority which was fit to be obeyed.

A more violent reaction was that of the Jats – members of an agricultural caste – of the Mathura district. The great Kesava Deo temple of the holy city of Mathura was one of the chief objects of Aurangzeb's iconoclasm, and its demolition provoked a Jat rebellion. Later, in 1691, continued persecution provoked the Jats to desecrate Akbar's grave, exhuming and burning his bones. This was an unfortunate action in the light of Akbar's own tolerant religious policies, but the grave of an ancestor was an easy target for revenge, and the Jats were no historians. They were cultivators turned plunderers; and from this period onwards, through the empire's decades of decline, they were continuously troublesome both for the emperors and for their Rajput neighbours.

The Jats' activities were checked, though not stopped, by occasional campaigns against them.[1] On one such campaign, in 1716, Sawai Jai Singh II of Amber was sent by the Emperor Farrukhsiyar to suppress two Jat leaders, Badan Singh of Sinsini and Churamun of Thun. Sawai Jai Singh met with no success until the two Jats fell out; he then enlisted the help of Badan Singh against Churamun and the latter was defeated. Badan Singh was rewarded with the gift of Churamun's possessions, Thun and Dig; and in 1722 he was installed Raja of Dig, under the protection of Amber.

Badan Singh's clan, the Sinsini Jats, thus achieved respectability and a degree of security. They enhanced the respectability by claiming kinship with the Rajputs,[2] and increased the security through territorial conquest. In 1733 Badan Singh's son and heir, Suraj Mal, took the town of Bharatpur, twenty miles south of Dig, from another Jat ruler. The state capital was transferred to Bharatpur, and probably about this time Suraj Mal became regent, though his father lived until 1755.

Suraj Mal's career – like many others in the anarchic period of the collapse of the empire in the mid-eighteenth century – was dazzling but brief. At the zenith of his power, in 1761, he occupied Agra; but two years later he was killed while attacking Delhi. The power of the Bharatpur Jats did not long survive him; they were driven from Agra in 1774 and further crushed by a rallied imperial army in 1776. However, the state survived, within modest boundaries; and despite a turbulent start to relations with the British, became one of the first to enjoy British protection.[3]



223. Bharatpur; Badan Singh's palace (c. 1733)

Badan Singh built palaces at both Dig and Bharatpur, and Suraj Mal built at Dig (despite the transfer of the capital). These buildings are varied in type, but all of them stylistically belong to the Rajput tradition, and in all probability they were built by the craftsmen – or the descendants of the craftsmen – who were responsible for the Rajput palaces. It is this continuity which justifies their inclusion here. However, though each of the Jat palaces can be seen as a continuation of some aspect of the Rajput tradition, none of them represents any major development of it. The architecture of this period is more retrospective than innovative; it reveals an imaginative toying with old ideas rather than a search for new ones, and for this reason it may be called mannerist.

Badan Singh's palace at Dig, the Purana Mahal (from 1722), is built on a plain and is barely fortified; but in other respects it continues the tradition of the Rajput *garh* palace. It is a single, continuous mass of building; on the outside a roughly rectangular block, and on the inside having apartments arranged around two open *chowks*. Surfaces are rendered and whitewashed; and the outer walls, with little decoration and few openings, are massive, not to say drear. Over their plainness, the upper portion of the palace is a decorative fringe, a confusion of domes and high-level galleries.

The transfer of the capital to Bharatpur was a strategic move, for although Bharatpur too is situated on a plain, it stands at the confluence of the Ruparel and Banganga rivers and the surrounding land could swiftly be artificially flooded. In the north-west corner of the walled city is a square fort, and within this, on the highest land, is Badan Singh's palace [223].[4] Like his palace at Dig it is built around two courtyards, but in many other respects it revives the tradition established by the palaces of Orchha and Datia. Having two courts rather than one, it is rectangular rather than square in plan; but its regular massing and high, sheer outer walls clearly recall its Bundelkhand antecedents. The projections in the centre of the sides specifically recall the Raj Mandir at Orchha [96], just as the octagonal corner towers recall the Govind Mandir at Datia [99].

Similar echoes of Orchha and Datia are found in two lesser palaces at Dig: the Sheesh Mahal, attributed to Badan Singh's brother, and a *haveli* built within the

224. Dig; the Sheesh Mahal (c. 1725)

225. Dig; Suraj Mal's *haveli* (c. 1730)

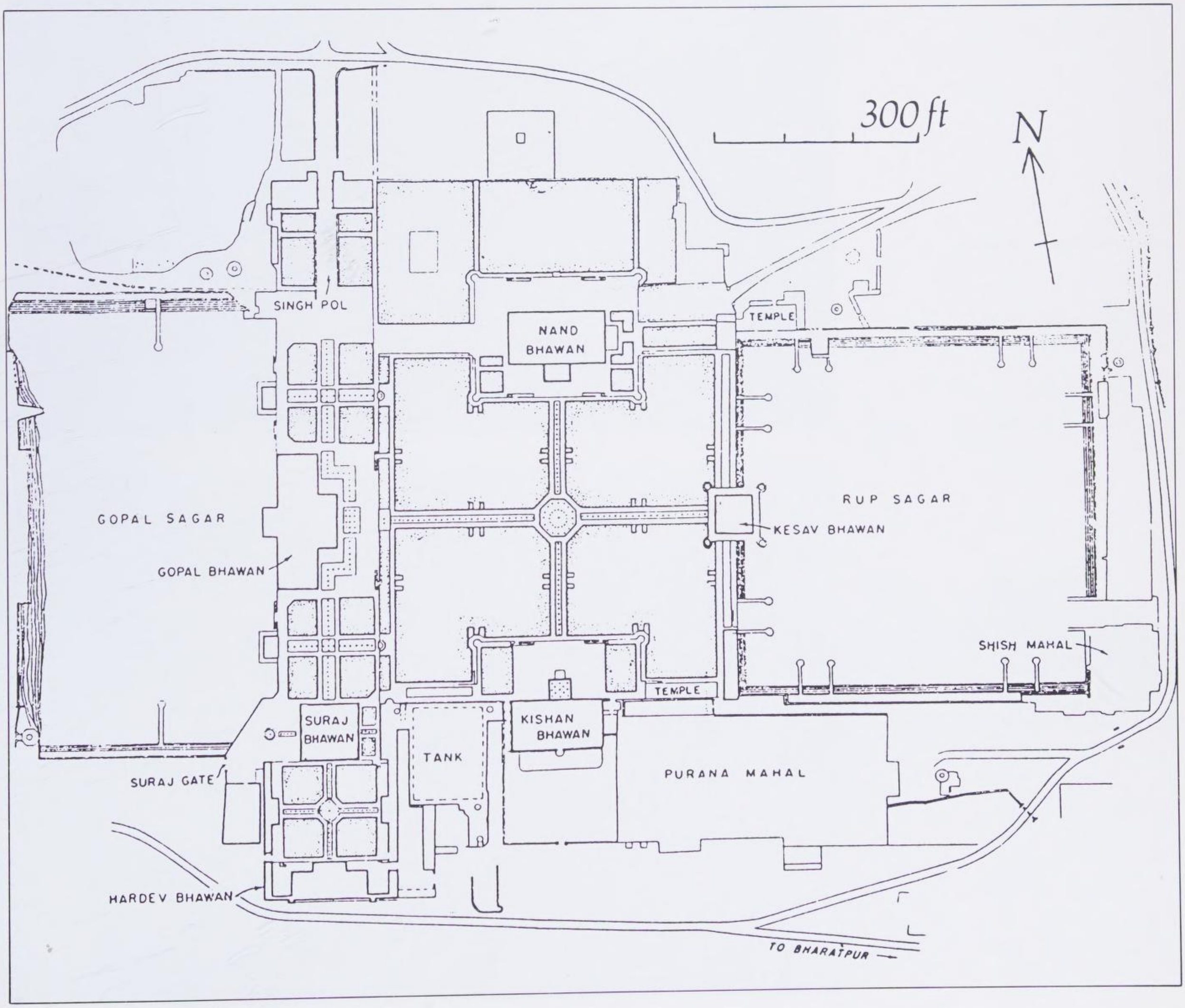
fort of Dig by Suraj Mal. Both are symmetrical in massing and the Sheesh Mahal has octagonal corner towers [224]. It also has a pavilion on its roof, capped by a large *bangaldar* dome, a form common to all of the Dig palaces: the Purana Mahal and Suraj Mal's *haveli* each have several, arranged in close proximity and at right angles to each other so that the deep curves of the eaves produce a playful, restless line [225].

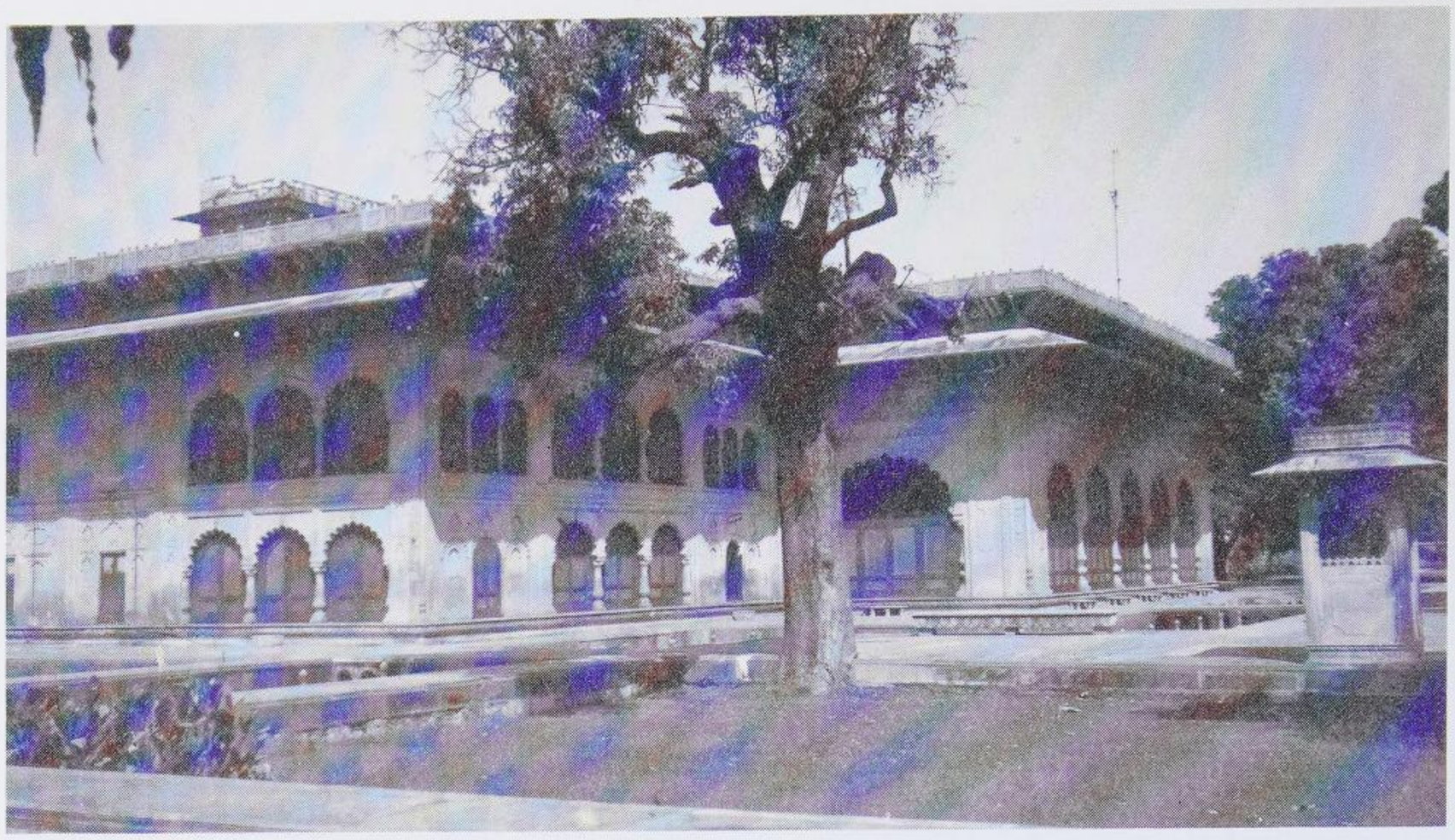
The most extensive and splendid palace at Dig, however, is that built by Suraj Mal towards the end of his reign, about 1760. This consists of a group of detached pavilions arranged around a formal garden with fountains. The garden is roughly square, with a major pavilion in the centre of each side [226]. From each of these

pavilions, or *bhawans*, a waterway runs to an octagonal pool in the centre of the garden, thus dividing the garden into four equal parterres. The *bhawans* are not of uniform design but three of them – the Nand Bhawan on the north side [18], the Gopal Bhawan on the west and the Kishan Bhawan on the south – are similar to each other: each is a long and low building with a central hall occupying most of its space. In the case of the Gopal Bhawan, this hall is flanked by wings of two low storeys which reach the same height as the central, single storey [227]. The Nand and Kishan Bhawans are single-storeyed and rectangular. The eastern pavilion, the Kesav Bhawan, is a square, open *baradari* [228].

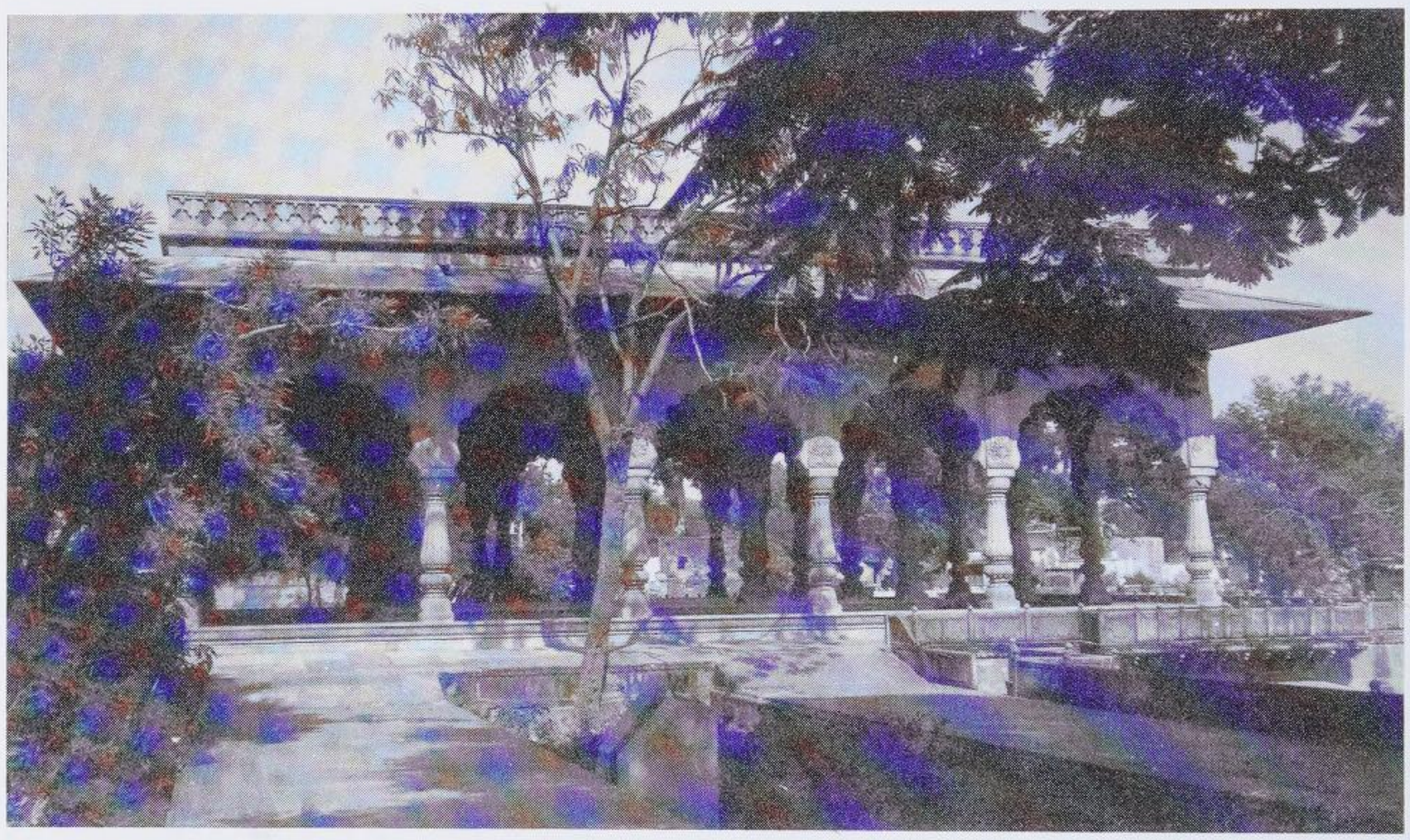
These four pavilions are the major focal points of the scheme, but there are other buildings. The Gopal Bhawan is flanked by two small pavilions; the Sawan Bhawan to its north, and the Bhadon Bhawan to its south. In the south-west corner of the garden is the Suraj Bhawan [229] and, south of this, another, smaller garden, surrounded by ranges including the Hardev Bhawan [226]. This small garden echoes the larger one, with axial waterways and a central octagonal pool. Together with the buildings surrounding it, it forms an unexpected adjunct to the main scheme, to which it has no very clear or satisfying relation. However, the presence of *jali* screens in the Hardev Bhawan suggests that this subsidiary court served as the *zenana*, a function which would account for its peripheral location. It is also possible that

226. Dig; a plan of the garden palace (Archaeological Survey of India)

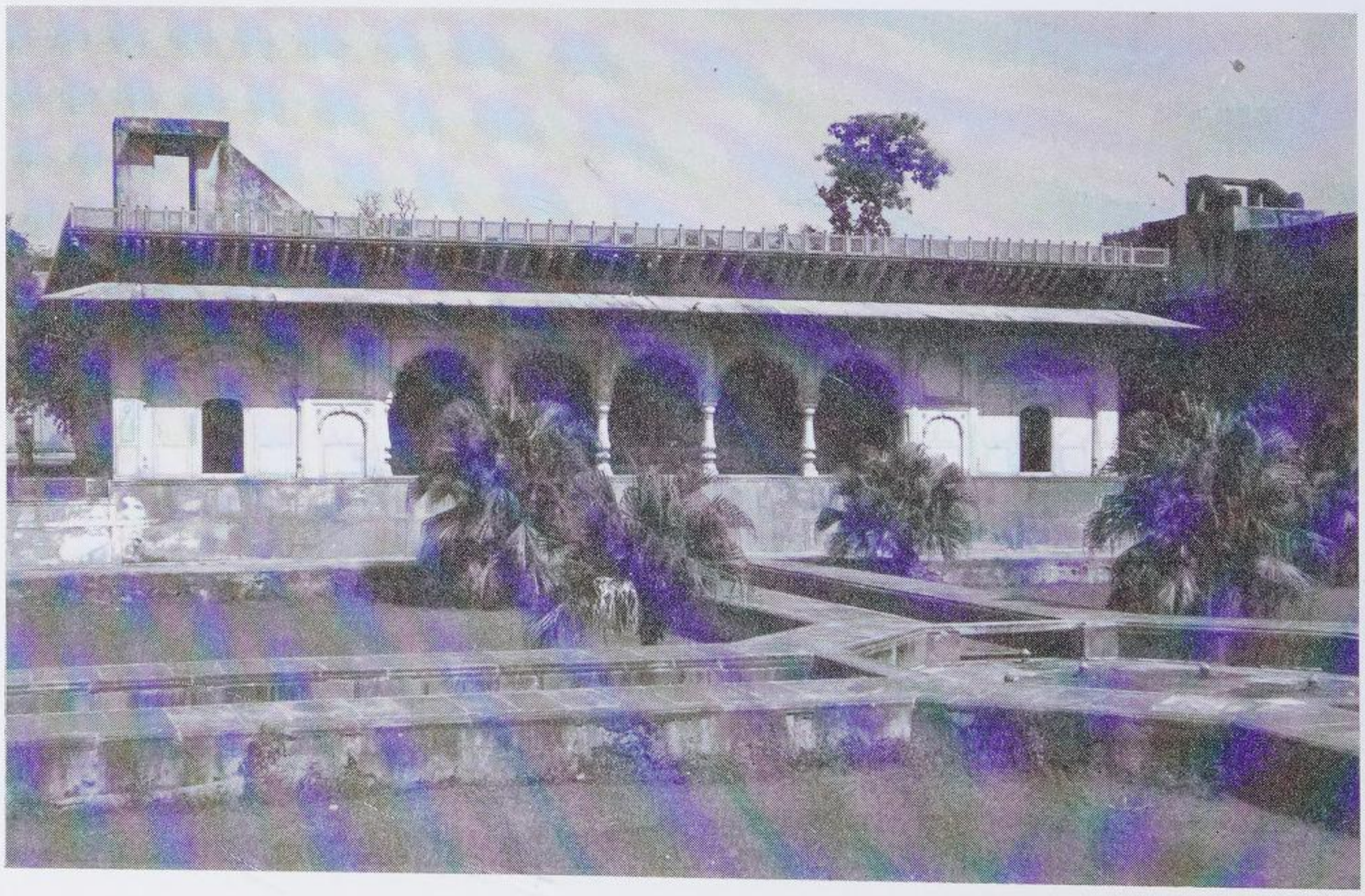




227. Dig; the Gopal Bhawan, from the south (c. 1760)



228. Dig; the Kesav Bhawan (c. 1760)



229. Dig; the south front of the Suraj Bhawan (rebuilt c. 1760)

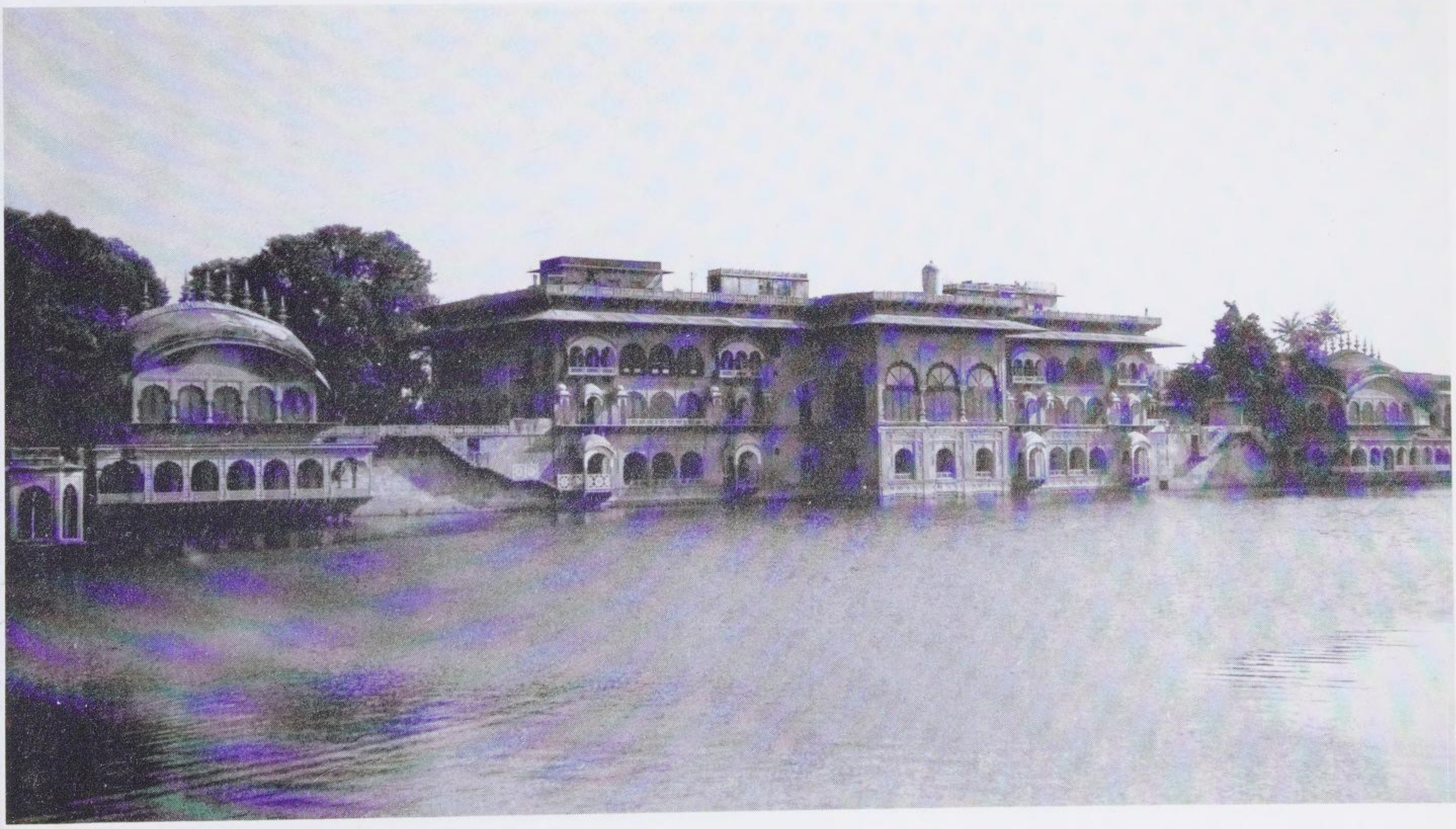
this court was not conceived as a part of the larger scheme at all, but is an older palace renovated by Suraj Mal. Supporting this notion is the complex internal arrangement of the Hardev and Suraj Bhawans, more traditional than the large, uninterrupted spaces of the Nand, Gopal and Kishan Bhawans.

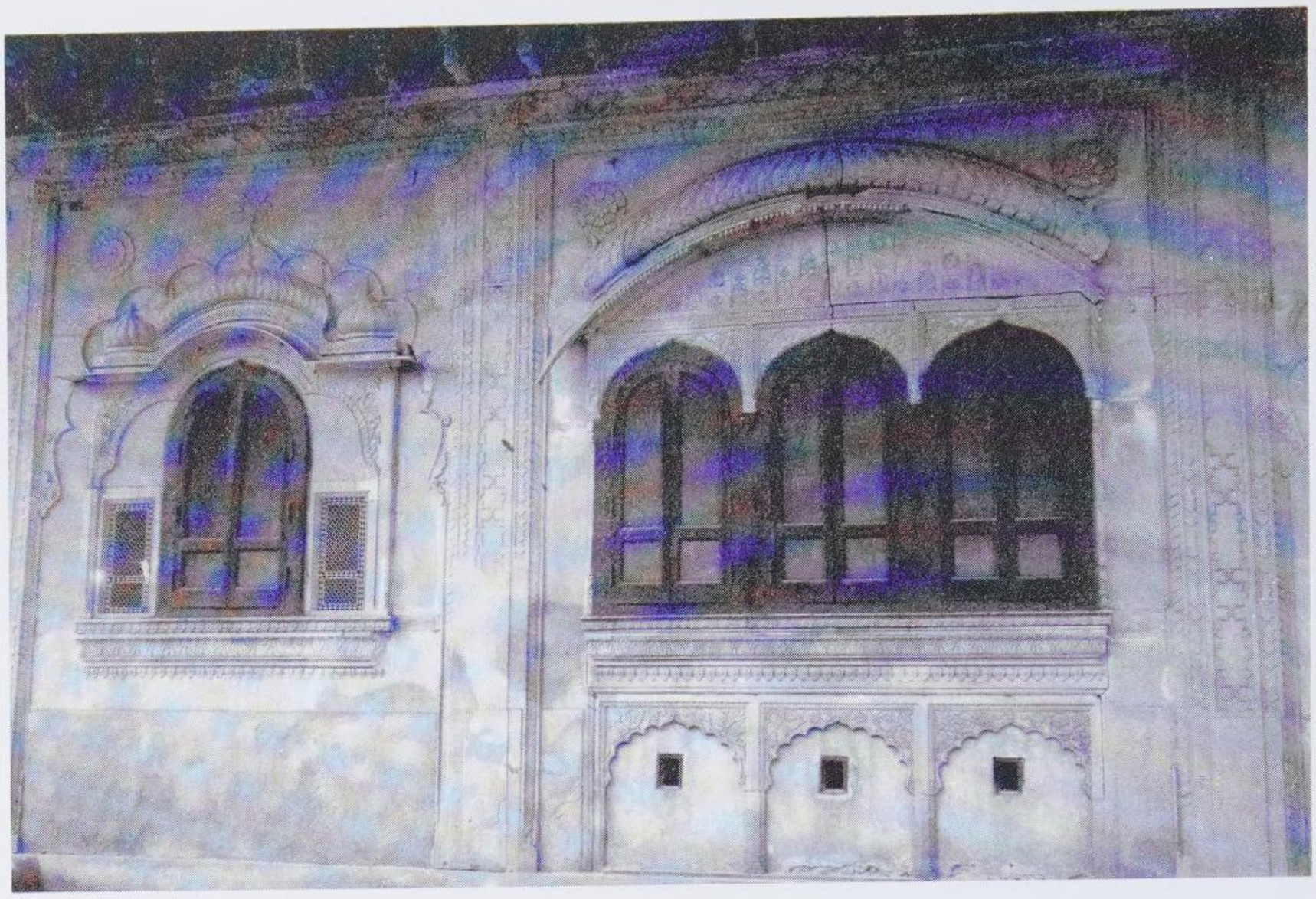
The two gardens are to some degree linked by the Suraj Bhawan; it is a point of communication between the two courts, being itself a part of both, and might therefore have served as the place where Suraj Mal met and was entertained by his women. Originally built of buff sandstone like the other *bhawans*, the Suraj Bhawan has at a later date been encased in white marble. This again indicates a rebuilding process by Suraj Mal[5] (from whom the pavilion takes its name). The marble was probably looted from Mughal buildings, and the sensitive *pietra dura* decoration was added in imitation of them.

Extensive as the palace is, with its two courts, some authorities assert that it is incomplete. They point out that to the north of the Nand Bhawan there is a further stretch of garden, suggesting a projected extension of the scheme in that direction, an extension which would have placed the Nand Bhawan in the centre of a rectangular garden.[6] In support of this hypothesis is the form of the terrace on which the Nand Bhawan is built: whilst the Kishan Bhawan stands at the back of a terrace, the Nand Bhawan stands in the centre of one so that the building faces equally north and south.

To the west of the main garden is a large tank, the Gopal Sagar. The *bhawans* on that side of the garden – the Gopal Bhawan and its two small flanking pavilions – are built on its bank and their rear elevations overlook the water [230]. Since the level of the water is lower than that of the garden, there is space on the tank side of the buildings for lower storeys, built against the side of the tank and receding into the water. Although when seen from the garden the pavilions appear to have only one storey (or two low storeys, in some parts of the Gopal Bhawan), when seen across the Gopal Sagar they are seen to have more. The Sawan and Bhadon Bhawans each have one such extra storey while the Gopal Bhawan has two, but just how many are visible and usable varies with the level of the water. The Kesav

230. Dig; the Sawan, Gopal and Bhadon Bhawans, from the west





231. Dig; a detail of the east front of the Nand Bhawan

Bhawan is similarly arranged in relation to the Rup Sagar, to the east of the garden. These lower storeys built into the water appear to float, and in this respect the Dig *bhawans* perpetuate the Rajput water palace tradition, which began with Padmini's island retreat at Chitor and continued with lake palaces such as those of Udaipur and Jaipur.

Despite this distinguished ancestry, the *bhawans* are not without some weaknesses. Much of the decorative carving, though crisply executed, trivializes architectural forms in the same manner as that on the Hawa Mahal at Jaipur: when domes and *bangaldar* roofs are carved in shallow relief, architecture is reduced to a picture of itself [231]. The elevations, too, are flat, lacking depth and variety. Of course, the ugly modern screens which now fill the arcades exacerbate this weakness, but originally things were worse as drapes were hung in front of the arcades (the metal rings from which the drapes were suspended have recently been removed).[7]

The flatness is somewhat mitigated on the Gopal, Nand and Suraj Bhawans by the use of two *chajjas* – a striking feature and the only innovation which the Dig palaces offer [227]. The lower *chajja* is sloping in the usual manner, while the upper one projects horizontally from the facade, and both are supported by a profusion of brackets. The brackets are not evenly spaced but arranged in groups, and on the central section of the Gopal Bhawan the grouping on the upper *chajja* differs from that on the lower, so that a system of counter-rhythms unexpectedly interrupts the unison on either side.

The double *chajja* and brackets, in their richness, are typically Hindu and so belie the pervasive Mughal influence on the palace scheme. The palace is a logical successor to the City Palace of Jaipur, for the borrowing of Mughal planning principles, initiated in the courtyard additions to the Jaipur palace, here becomes central to the conception. This group of low, detached, open pavilions formally arranged on level ground, follows the formula of the Mughal palace.

That it does not follow the usual pattern of Rajput *garh* palaces is not surprising since it was not intended to serve as a *garh* palace; that role was filled by the palace at Bharatpur, the state capital. But neither is it much like the Rajput pleasure palaces, since in them there is habitually some contiguity and informality in the arrangement

of parts. It falls between the two traditional types of palace. Lacking fortifications, it cannot be called a *garh* palace, and yet it is too large to be termed a pleasure palace: it is a major palace for accommodation, not a picnic site or a summer retreat. The siting of such an important palace, undefended on a plain, is also – like the siting of Jaipur – a measure of its builder's bravado and a sign of the changed political climate.

The choice of architectural forms employed in the *bhawans* marks the culmination of the process which characterizes the development of the Rajput style in the eighteenth century: the more archaic Hindu forms are now quite eradicated and replaced by forms of Mughal invention. Temple-style columns, for example, are found nowhere in the palace, having been successfully usurped by the Mughal balustered and fluted columns. Alongside these Mughal forms, however, are forms which are of ancient Indian lineage but only recently returned to fashion; these include the Buddhist trefoil arches, already noticed in the Chandra Mahal at Jaipur, and employed here on the main fronts of the Suraj, Nand and Kishan Bhawans [18].

The Dig palace finds a more specific Mughal source in the Mughal garden tradition: it is clearly partly inspired by such schemes as Jahangir's Shalimar Bagh and Nishat Bagh in Kashmir, and Shah Jahan's Anguri Bagh in the Agra Fort [19] and Hayat Bakhsh in the Lal Qila at Delhi [42]. From these gardens are derived Dig's axial waterways dividing the garden into a *charbagh* (a garden of four parterres), and the siting of open pavilions around the garden. At the outer end of each watercourse the water is made to fall in a sheet in front of a low wall with rows of niches, so that the light of lamps placed in the niches could be seen through the water; this attractive device, too, is borrowed from the Mughal gardens [232]. The Mughal gardens are themselves derived from the Persian *pairidaeza*, a tradition introduced into India by Babur.[8]

A garden with waterways was in fact a traditional component of ancient Hindu palaces: Megasthenes's account of Asoka's palace at Pataliputra (third century BC) includes a description of the palace gardens and their 'artificial ponds of great beauty';[9] Act VI of Kalidasa's *Sakuntala* (written in the late fourth century AD) is set in a garden in Dushyanta's palace;[10] and the palace of Harsha (seventh century) according

232. Srinagar; a water cascade in the Shalimar Bagh (c. 1620)

to contemporary accounts contained flowering trees and a water garden.[11] But although such gardens are precedents for the palace garden at Dig, they do not amount to a dependable source; there is no evidence of a continued, uninterrupted tradition of gardens in Hindu palace architecture. The Dig garden must be considered not as the perpetuation of an old tradition but as the revival of a lapsed one, a revival which was inspired by the splendours of the Mughal gardens.

Even so, the Dig garden palace is not without a Hindu element, for it draws also on a Hindu romantic tradition, both literary and pictorial, associated with the *varsha ritu* or season of monsoon. The origin of this tradition is a story in the *Ramayana*. When Sita is abducted by Ravanna, Rama is prevented from rescuing her at once by the monsoon; he sits down to wait and describes, in similar terms and fine detail, both the monsoon rains and his longing for Sita.[12] It is not an agriculturalist's celebration of the return of rain to enrich the earth, but a lover's celebration of events as turbulent as those of his own heart. The theme is taken up in miniature painting, and particularly in the Ragamala cycle, based on the musical modes, for the cycle includes the Todi Ragini, represented by a lonely girl awaiting her lover who is delayed by the monsoon. And the same theme is still current in Hindi folk songs.

There are several aspects of the Dig garden palace which mark it as a comparable, though architectural, evocation of the monsoon. The Sawan and Bhadon Bhawans are named after the monsoon months (*sawan* corresponds to July/August and *bhadon* to August/September); and their exaggerated *bangaldar* roofs positively invite severe monsoon showers [233]. There could be no better setting for Vidyapati's lament:

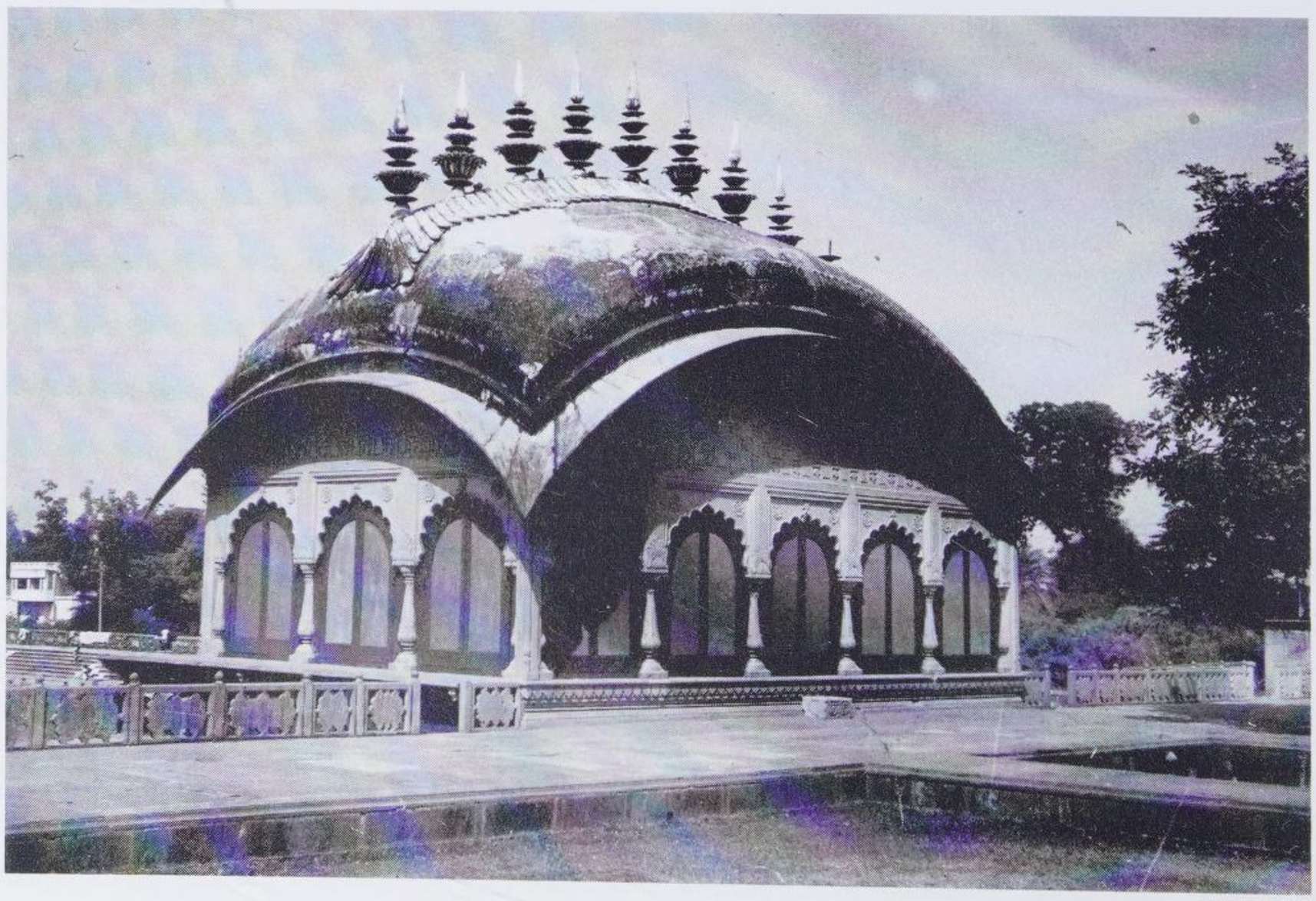
> It is August, the sky breaks into a passionate rain;
> Alas, empty is my house . . .

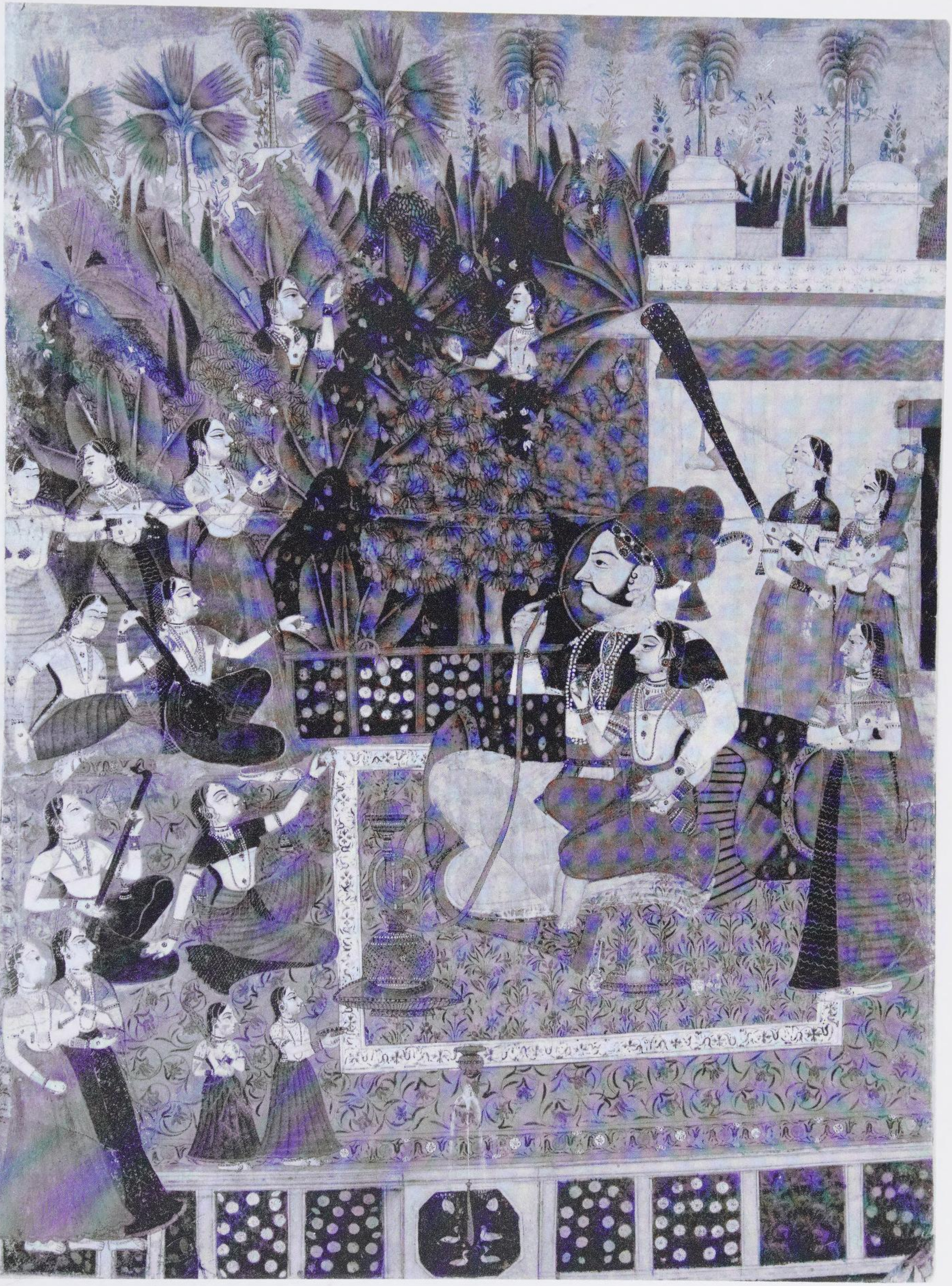
The Kesav Bhawan originally included elaborate devices to reproduce the effects of the monsoon: there were stone balls in the ceiling which could be agitated by piped running water to re-create the noise of thunder; and the water was released through spouts above the arches to fall as rain in sheets around the open hall [228]. A broad canal running round the edge of the pavilion increased the sense of being penned in by water.

A customary feature of ancient Hindu gardens was a swing; and in certain variations of the Todi Ragini the impatient girl is shown on a swing against a stormy back-

233. Dig; the Sawan Bhawan, from the south (c. 1760)

234 (facing). A raja and women in a palace garden (Bundi School, c. 1760)





ground: the exhilarating action of swinging might be taken to symbolize her anticipated sexual pleasure, just as the stormclouds symbolize the lovers' tempestuous mood. Another association of swings and monsoon weather is found in the festival of Teej, the monsoon festival which Rajasthani women still celebrate by playing on swings. Reference to traditions such as these accounts for the presence of a swing on the terrace outside the Gopal Bhawan. The marble frame, with rings for the now missing ropes, stands centrally on the terrace, with a commanding view of the garden.[13]

For a pattern of flowerbeds to remain visible the beds must be planted thinly, with flowers or low shrubs. The complex pattern of flowerbeds in the Anguri Bagh of the Agra Fort, for example, would be obscured by any luxuriant growth [19]. The parterres of the Dig garden, however, have no flowerbeds [18]; they are not subdivided, like those of the Anguri Bagh, by low stone curbs. This suggests that the intention at Dig was to depart from usual Mughal practice and to plant more thickly.[14] Thicker planting, with trees and dense shrubberies, would have created an effect reminiscent of the gardens of Rajput miniature paintings [234] – not bright and ordered grounds but mysterious and moonlit jungles frequented chiefly by women; or reminiscent, perhaps, of Rama's Nilgiri forest retreat, where he pined for the lost Sita.

The Hindu romantic tradition attached to the *varsha ritu* had some influence even on Mughal gardens, for the principal pavilions of the Hayat Bakhsh in the Lal Qila at Delhi, like two of the pavilions of the Dig palace later, are named after the monsoon months. It need not be supposed from this that the Dig palace offers an example of Hindus borrowing back elements of their own heritage from the invaders. Rather, this correspondence again illustrates how two traditions existed alongside each other, contributed to and modified each other, and yet for the most part remained distinct. The Dig garden palace owes much to the Persian-Mughal garden tradition, but it also draws on Rajput and more generally Hindu traditions. Specifically, it draws together three such threads: the formal garden palace, seen in earlier Rajput palaces such as those of Amber and Udaipur; the *jal mahal* or water palace, initiated at Chitor and continued at Udaipur and Jaipur; and the *varsha ritu* romance. The synthesis of these three is the apotheosis of them all, and is what gives the Dig garden palace its distinct character and its individual beauty.

ELEVEN

POSTSCRIPT

1. Lesser and later palaces: developments after 1750

The survey of Rajput palace architecture given in the chapters above considers the palaces of all of the major former states, but it is still not exhaustive, for it ignores some states which were geographically marginal and politically less important. Their palaces provide further examples of the Rajput style, but they are less splendid, smaller and less well preserved. They are also less innovative; they made little or no contribution to the development of the style themselves, but followed the lead set by other buildings.

The relative unimportance of these states and that of the palaces within them may not be unrelated, for the raja of a small, weak state would have been less able than others to afford grand building projects and so also less able to attract leading craftsmen to his service. He would therefore have had to be satisfied with a palace which reflected his prestige among fellow rulers more accurately than he might have wished. Some of these small states fostered especially fine schools of miniature painting – a less expensive art to patronize than architecture.

Though some of the smaller Rajput states were of late foundation, others were of a respectable age. Four which existed already by the beginning of Akbar's reign are Karauli, to the east of the region, and Sirohi, Banswara and Pratapgarh, all to the south. Of these, the last named has a substantial palace, built in the mid-seventeenth century by Rawat Hari Singh, in the old capital, Deolia. This palace contains various references to other specific Rajput palaces; the *jarokhas*, for example, are stacked one above the other like those of Rana Kumbha's palace at nearby Chitor. It is chiefly notable, however, for its extensive and vivid mural paintings, added about 1800.[1]

In central Rajasthan were two tiny states: Toda Rai Singh, a feudatory state of Mewar; and Kishangarh, founded as an independent state on Amber territory in 1603. The surviving palaces in both states are decorated with fine murals of the late eighteenth century. These may be considered as part of a wider movement: from the middle of the eighteenth century, mural painting, a long-established decorative technique, became increasingly popular and elaborate.[2] The most splendid murals of this period – those added to the palaces of Bundi [195], Kota and Jodhpur – are mentioned above. But mural painting was especially favoured in the smaller states, where it offered a comparatively cheap method of embellishing pedestrian architecture.

It was used in this manner in another small state, Nagaur, in north central Rajasthan. Situated roughly mid-way between the cities of Jodhpur and Bikaner, the fort of Nagaur is of twelfth-century, Muslim foundation. In the Mughal period

235. Alwar Palace; the old court (late 18th century)

it was used by the emperors as a shuttlecock: it was granted alternately to one state and then to the other. By manœuvres of this sort, the Mughals kept the Rajput states subject and competitive; by a single transfer of land they could at once weaken one state and appease or reward another. Occasionally, Nagaur achieved a status independent from both Bikaner and Jodhpur, and then it became an irritant for both. One such occasion was when Maharaja Abhai Singh of Jodhpur (1724–49) gave Nagaur to his brother, Bakhat Singh, after the murder of their father, Ajit Singh. Between 1725 and 1751, when he forcibly took Jodphur from his nephew, Bakhat Singh built several palace apartments within Nagaur fort, including the Badal Mahal and the Hawa Mahal; however, like some other buildings of their period, these apartments are remarkable only on account of their mural decoration.

It is less the unimportance than the late date of foundation of some states which has prohibited their inclusion in this account, for their palaces were built after the major stylistic developments which it describes had taken place. Such a state is Alwar, founded on the eastern fringe of Jaipur in the late eighteenth century (formally established in 1775). The Alwar palace consists of a number of adjoining courts. The oldest of these, at the northern end of the range, externally appears as a square block [235]; like Badan Singh's palace at Bharatpur, it recalls the palaces of Orchha both in its regular planning and in specific features such as the corner towers and the emphatic articulation of storeys on the outer walls [223, 98]. But it brings nothing new to the tradition, and indeed offers no stylistic development on the Bharatpur palace, built half a century before.

Of the dates which define the scope of this study, the first is readily explained: 1450 is the approximate date of the oldest surviving Rajput palaces. The development of the Rajput palace style did not begin in 1450, but in the absence of examples from an earlier period, the study necessarily begins then. The choice of 1750 to mark the end of that stylistic development is somewhat arbitrary by comparison. There was no sudden end to building activity; on the contrary, the mid-eighteenth century saw extensive building in most of the Rajput states. But the style then suffered a certain loss of momentum, a loss of inspiration. To date this decline to 1750 is necessarily inaccurate: it was not an abrupt change but a gradual process and it occurred at different times in different places (for evidently there was energetic and ambitious building not devoid of inspiration in Dig in 1760). But by and large, by the middle of the eighteenth century that weakening of the style first encountered in Jaipur as early as the 1720s was widespread and firmly entrenched.

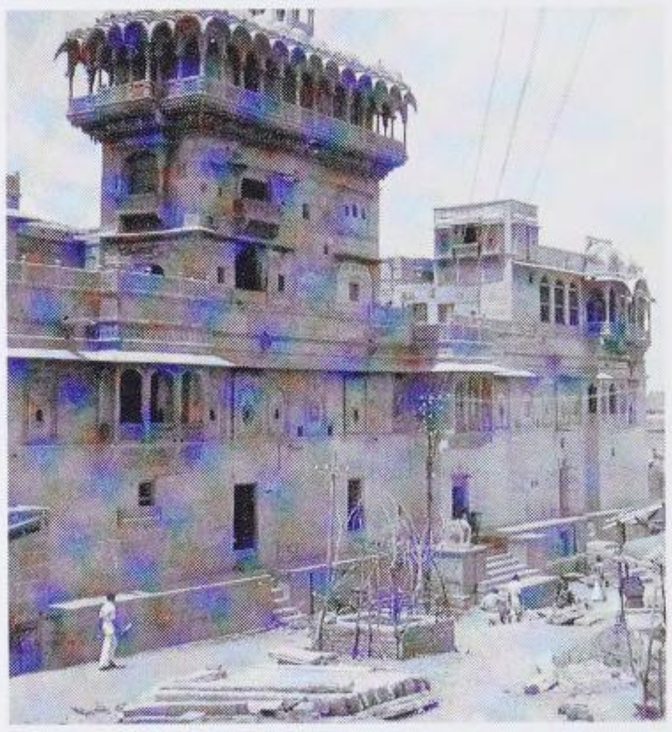
237 (facing right). Jaisalmer Fort Palace; Gaj Vilas (1820–46)

238 (facing left). Jaisalmer Fort Palace; Moti Mahal (19th century)

The period between 1750 and the end of the century saw little stylistic development. Even in newly established states such as Alwar, craftsmen depended on the reiteration of well-established formulae. In the older capitals (those of them which had not already been abandoned or lost) building continued, as further additions were made to the *garh* palaces; but, as is shown above, these late additions are characterized by an emasculation of the style, by architectural forms reduced in scale to decoration and multiplied in number. The greatest sufferer was the cusped arch, which was reduced from the once powerful form to a frill, and which through over-use gathered all the stupefying monotony of a *mantra* [160]. Through repetition it was both deprived of its original power and made tedious: it became an architectural cliché. The craftsmen of the late eighteenth century depended less on architectural form and increasingly on applied decoration, especially mural painting. All of this amounts to further change in the style, no doubt, but the inspiration is spent.

Exceptions to this general decline are to be found in Jaisalmer, where the tradition of fine decorative carving which had gradually developed over the preceding centuries was continued, and indeed was brought to perfection only in the early nineteenth century. Of this period are some elaborate merchants' *havelis*, including notably the range of five known as Patua ki Haveli; the *haveli* of Maharawal Mulraj II's *diwan*, Salim Singh; and some later additions to the *garh* palace including the Gaj Vilas. Certainly, in these buildings architectural forms – arches, columns and *jarokhas* – are reduced in size and multiplied, as in late buildings elsewhere. But here the carving remains crisp and deep, and the buildings have something of a bizarre quality, an element of the grotesque, which sets them apart from their less exceptional contemporaries. They take the Rajput style on a route first indicated a little earlier by the Hawa Mahal at Jaipur (1799) [219]. In these buildings, as in the Hawa Mahal, the piling of architectural forms like the sculptural decoration of a temple, suggests the powerful force of continuity inherent in the Hindu tradition.

In Patua ki Haveli (c. 1805), the projecting balconies are packed so closely together that they entirely obscure the wall from which they project [*xv*]. Some of them have a double *chajja*, a scarcely necessary embellishment here, borrowed from the garden palace of Dig. The decorative carving of Salim Singh ki Haveli (c. 1815) does not have the same fanaticism about it: the lower storeys are left comparatively plain so that they serve as a foil to the upper storey in a manner reminiscent (though on a smaller scale) of the great *garh* palaces [236]. But little restraint has been exercised in the design of the upper storey; the cantilevered continuous balcony with its minia-



236. Jaisalmer; Salim Singh ki Haveli (c. 1815)

ture *bangaldar* eaves, is quite deliberately eccentric and ostentatious.

A similar cantilevered arcade adorns the principal storey of the Gaj Vilas, an extension to the palace *mardana* added by Maharawal Gaj Singh (1820–46) [237].[3] The main or south elevation of this addition is a well-balanced composition, at once varied and full of playful self-reference. The parapets of the two storeys, for example, follow the same line but contrast in design, the lower one being solid with exposed brackets, while the upper one is perforated and has its brackets concealed behind a hanging fringe of carved tassels. The isolated *chattris* of the lower storey sketchily echo the continuous arcade above, while their straight *chajjas* contrast with and set off the confusion of curves of the upper storey's *bangaldar* eaves.

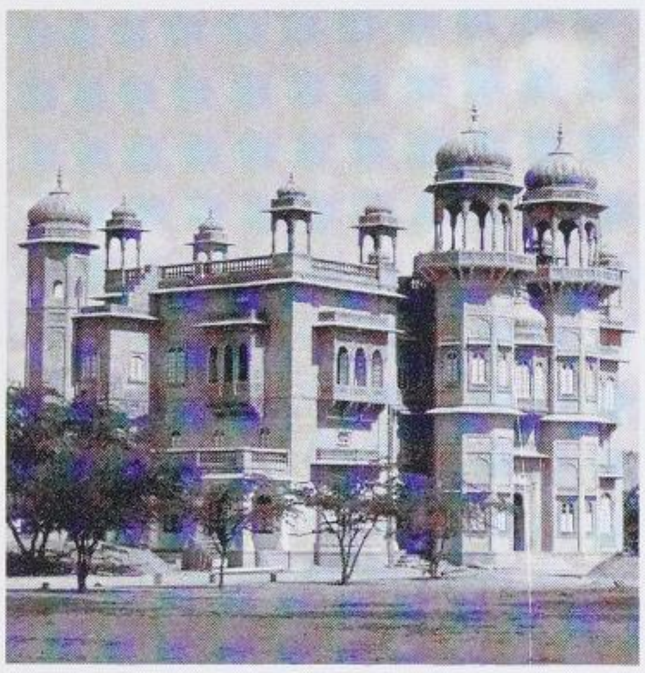
Standing adjacent to the Gaj Vilas to the west is the Moti Mahal which originally housed a *cutcherry* [238]. It follows the same general outline as the Gaj Vilas but it has weaker, flatter forms; indeed it appears to be a feeble copy of the Gaj Vilas, and this suggests that it was built rather later than 1813, the date to which it is sometimes ascribed.[4]

The Moti Mahal excepted, the late buildings at Jaisalmer show how a particular skill once perfected could be sustained and passed on from one generation of craftsmen to the next. Indeed the stone-carving tradition continued in Jaisalmer until the turn of the century: the Badal Vilas, a palace built in the *taleti* by Maharawal Bairi Sal (1864–91), shows the art unchanged towards the end of the century.

However, in the last buildings, though they are still finely carved, there is a new and intrusive element: a European influence. At first this consists only of isolated vulgarities: the decorative carving on Nathmal ki Haveli (the house of Bairi Sal's *diwan*, c. 1885) for example, includes miniature sculptures of a train and a horse and carriage. Soon the European influence becomes more pervasive: in the Jawahar Vilas (another palace in the *taleti*, built by Maharawal Jawahar Singh in the 1890s) it is evident in the classical proportions, the pediments, mass-produced tiles and heraldic crests [239]. Finally it is triumphant: the Jawahar Niwas, a palace built outside the city wall by the same ruler a little later, is a country house in the Rajput taste; it is scarcely more Indian than Sezincote or Elveden [240].

A similar process is apparent among the painted *havelis* of Shekhavati, an area to the north of Jaipur. The late eighteenth-century mural decorations of these *havelis* represent a resurgence of a popular art, enriched by contact with the palace mural tradition. They might also be considered as a two-dimensional alternative to the

240. Jaisalmer; Jawahar Niwas (c. 1900)



239. Jaisalmer; inner court of the Jawahar Vilas (c. 1890)

decorative carving of the Jaisalmer *havelis*, for though technically less accomplished, they are a similar manifestation of the Hindu love of profuse ornament covering every surface. Towards the end of the nineteenth century, European subjects – such as trains and elegant English ladies and gentlemen – begin to supplant the traditional ones, and the later murals are amusing historical curiosities.

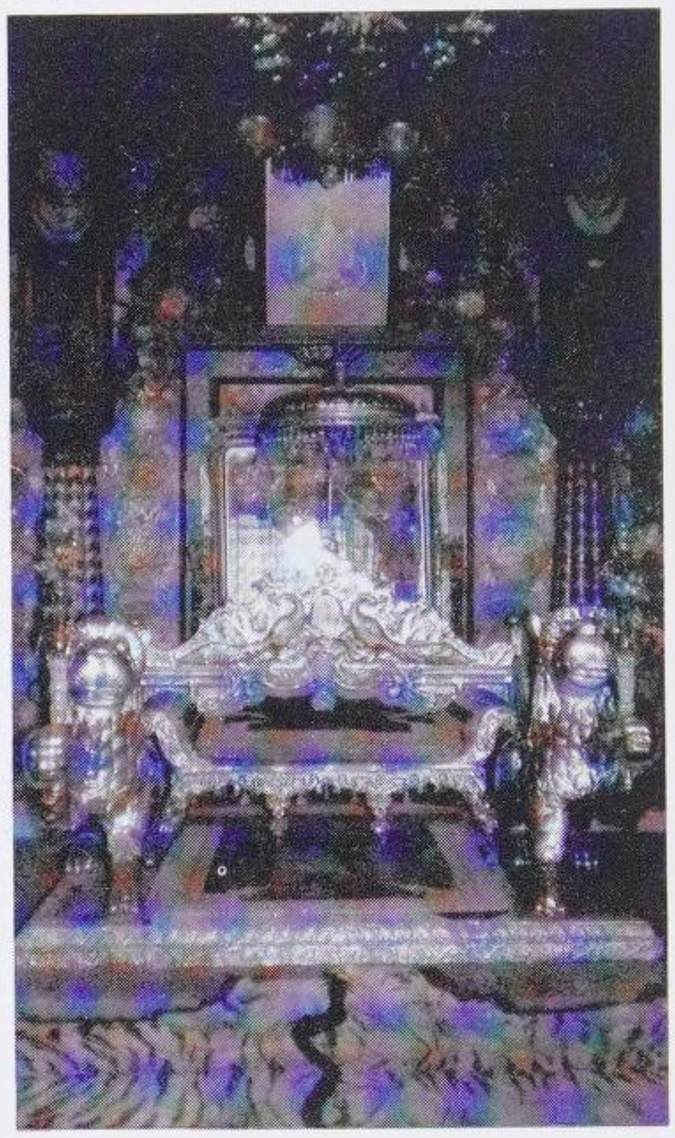
Jaisalmer and Shekhavati were not the only regions to be affected; the Rajput style as a whole underwent a decisive change in course as a result of European influence, a change brought about in several stages throughout the nineteenth century.

The first stage, which began even before 1800, was the introduction of classical architectural forms, copied from the palaces, churches, mints, barracks and houses being built on Indian soil by the British and other Europeans. After the period of imaginative sterility which had lasted since 1750, the Indian craftsmen suddenly found at their disposal a whole new vocabulary, and they attempted to resuscitate their declining art with an injection of borrowed forms. Round arches, round columns, pediments, fanlights, large shuttered windows and panelled doors were special favourites. The appearance of these features in the Bikaner *garh* palace is noted above [162].

Towards the middle of the nineteenth century the influence became more fundamental, as some attempt was made in new buildings to imitate classical proportions. A late palace built in the fort of Bharatpur by Maharaja Balwant Singh (1826–53), for example,[5] is entirely classical in planning and massing, and a few details are the only vestiges of the Rajput style. A little later, the introduction of iron facilitated the imitation of European architectural proportions: the later parts of the Alwar palace include huge assembly halls and ballrooms which could not be stylistically further removed from the cramped, secretive chambers of early Rajput palaces [241].

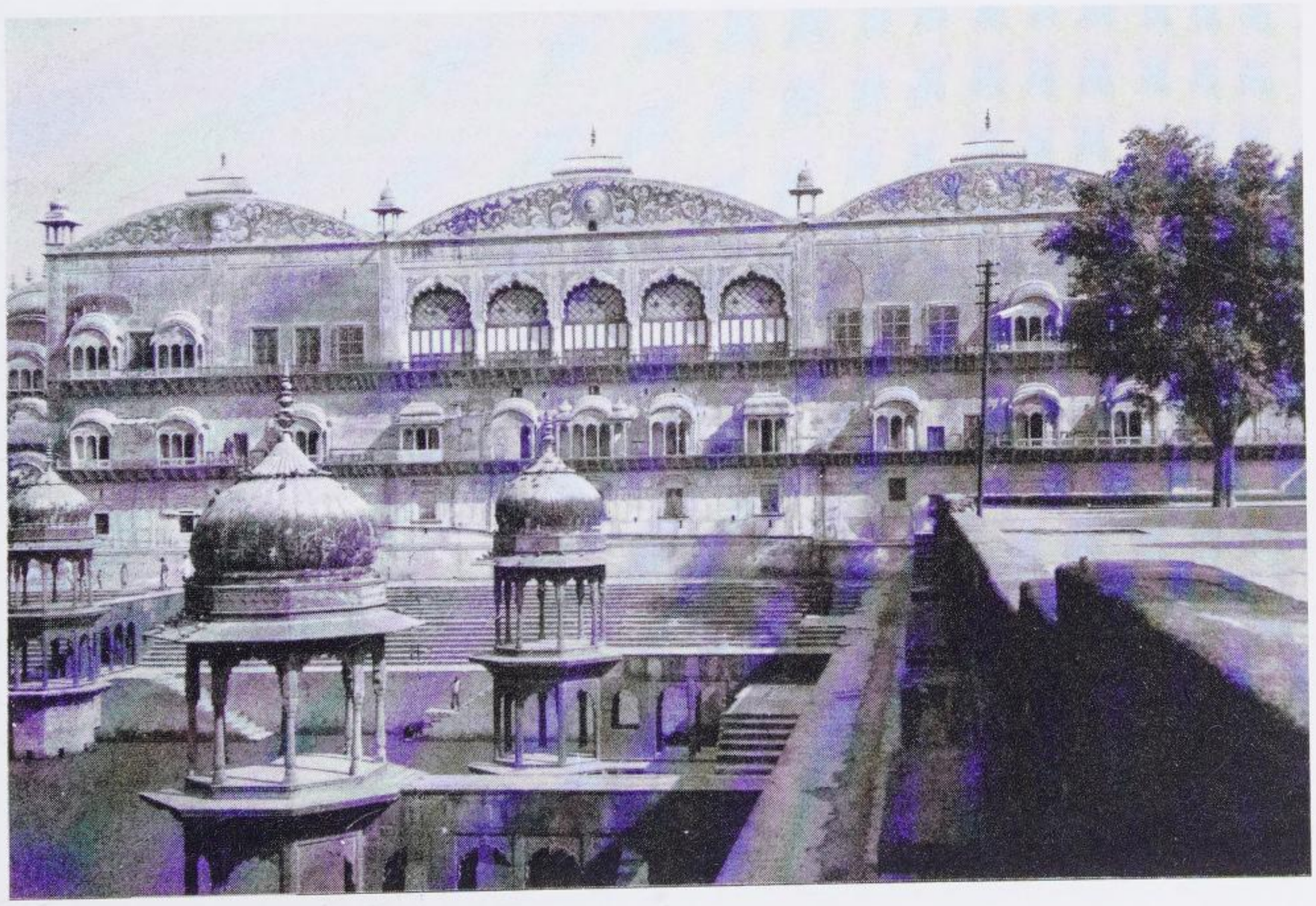
Towards the end of the century, the palaces became swamped by Victorian bric-à-brac [242]. The bolsters and cushions were swept away to make room for furniture; hunting trophies filled the walls as Chinese vases covered the floor; silver photograph frames littered every French pier table, and the dark painted walls and heavy draperies competed for gloominess. The very badges of royalty were made European: every carriage and cigar box was stamped with a crest which would pass for English but for its Sanskrit motto.

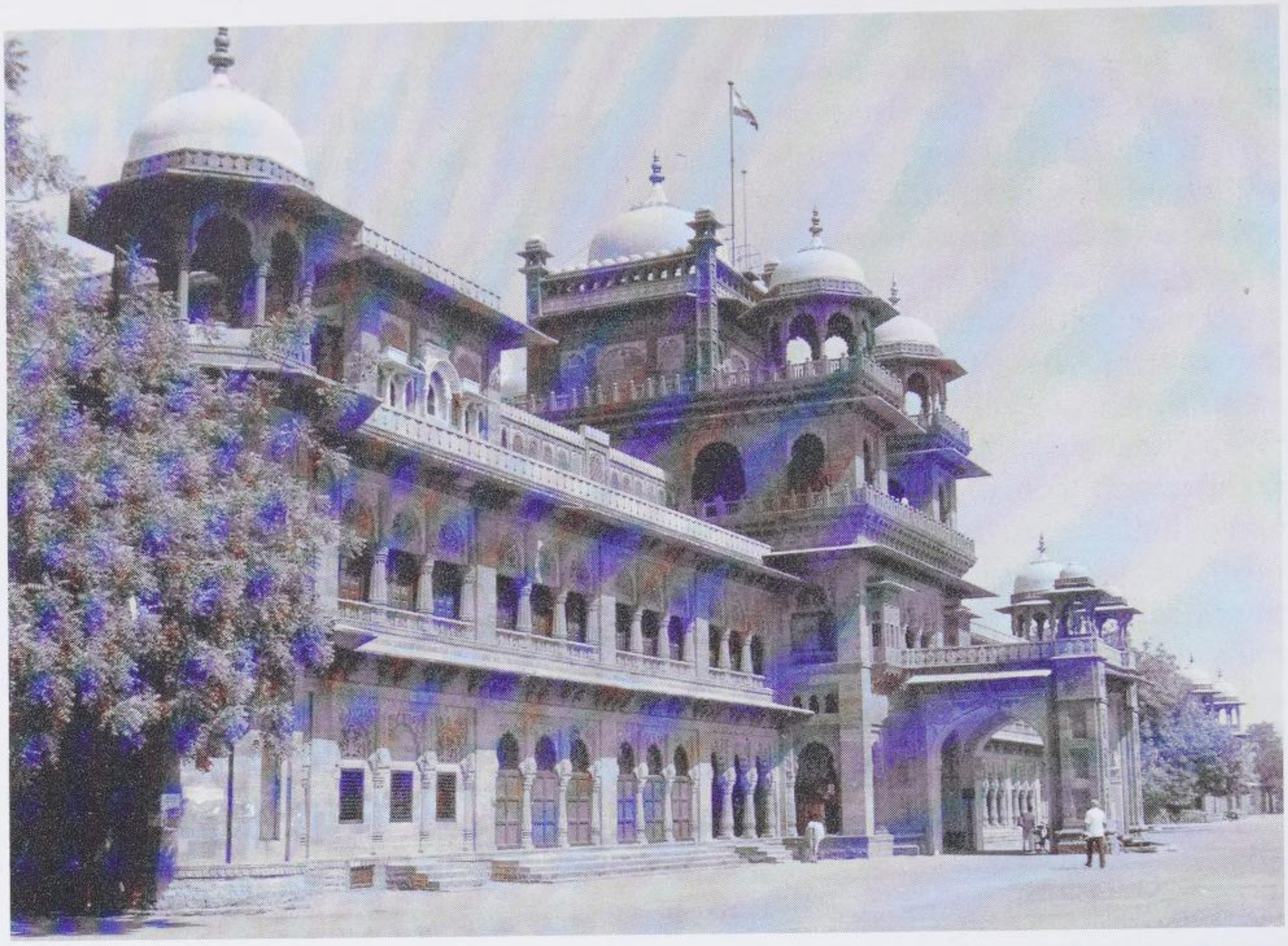
In the centuries before 1750, a continuing Hindu tradition had been gradually



242. Anglo-Indian decor in the Rewa Palace

241. Alwar Palace; the new court (c. 1850)





243. Jodhpur; the Judicial Court (1893–96)

modified by, and in turn modified, the Islamic tradition in India; and that relation was the greatest inspiration to them both. Just when these two traditions had apparently spent their force, a new and foreign element was introduced into India, and in the study of the period after about 1800 the primary issue is the relation between the remnants of Indian traditions (whether Hindu or Muslim) and European architectural methods and styles.

A synthesis of Indo-Islamic and European ideas, for example, was attempted in the architecture of the nawabs of Avadh (Oudh) from around 1800. Theirs, however, is an architecture without intellect; not a blend of traditions but a cocktail of disparate forms. Their buildings in Lucknow have a post-Mughal rococo decadence, and the insertion of European features only makes this more acute.[6]

For the Rajput style too, whereas the earlier contact with Islam had given it a new impetus and assisted it on the path to its most magnificent monuments, the later contact with Europe had the opposite effect. European models provided new forms but no new inspiration, and the hybrid architecture of the nineteenth century is feeble in design, a compromise rather than a synthesis. In another age the effect might have been different, the influx of new ideas might have proved invigorating; but by the time the British began to build extensively in India and establish political relations with the Rajput rulers, the Rajput style was already in decline. The effect of European influence was therefore merely to assist this decline, as the introduction of novelties sped the disintegration of tradition.

In the end, the effects of British rule were yet more far-reaching. The treaties which the maharajas had made with the British in the early decades of the century guaranteed peace, and so obviated the necessity for fortified palaces. They also left the maharajas with considerable surplus income, previously spent on warfare. From the middle of the nineteenth century onwards, the maharajas increasingly abandoned the old *garh* palaces and built new ones. These are not fortified retreats but country houses with European style rooms; they reflected the newly acquired western tastes of the rulers, and were more suitable than the old palaces for the entertainment of European guests.

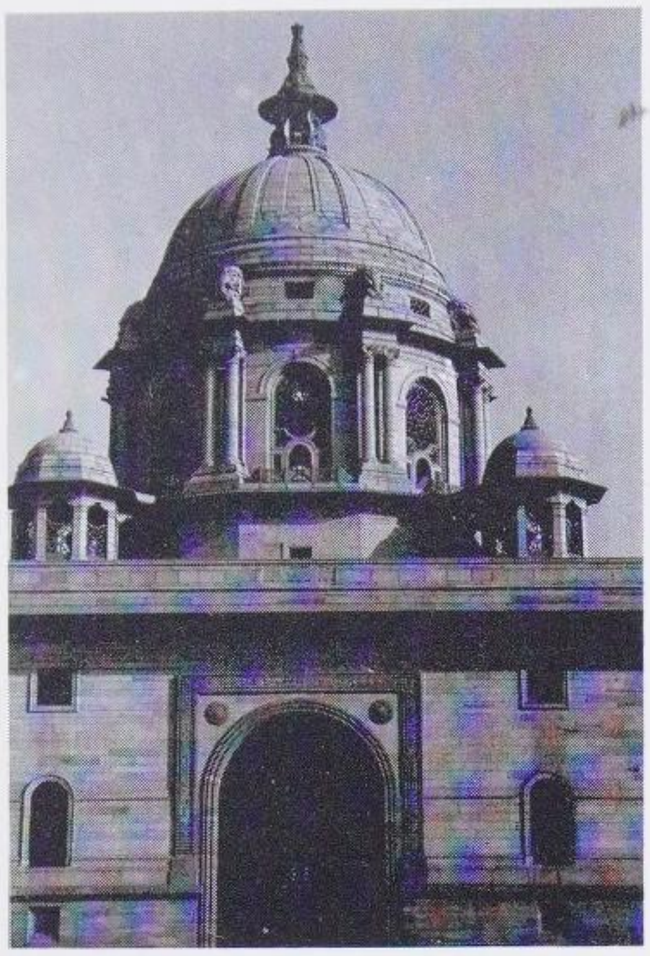
Some of these new palaces are wholly European in style: Italianate or French

Beaux Arts, for example. Others are built in a hybrid style which has been inaptly called 'Indo-Saracenic'; it might more appropriately be called 'Indo-Gothic', since it involves a treatment of Indian forms comparable to the Victorian treatment of Gothic forms. The Judicial Court at Jodhpur (1893–96; now the Collectorate) is a fine example of this hybrid style in a Rajput capital [243]. It is found too outside Rajasthan, as in the somewhat overwhelming Laxmi Vilas at Baroda, built in 1890. But whatever style was to be adopted, the maharajas often engaged European architects: the Baroda palace, for example, was designed by Charles Mant. This meant that the new generation of palaces were designed and constructed in the western manner, with a single designer-architect directing a labour force rather than several master craftsmen designing and building together. Changing royal tastes had put traditional Indian crafts in danger of extinction, and now changing methods threatened even the guild system itself.

This situation alerted the concern of some British engineers and officials who were interested in Rajput architecture, and who stimulated a regeneration of the style. Chief among these were Samuel Swinton Jacob (State Engineer of Jaipur, from 1867 intermittently until 1900) and Frederick Growse (ICS District Officer, Bulandshahr, 1877–84). Under their supervision some fine modern buildings were produced. Some, to be sure, are more bizarre than beautiful, the Jaipur City Museum being among them. But others, including the Mubarak Mahal in the Jaipur palace, are among the finest designs of their age [244]. Though their construction was promoted by Englishmen, these buildings could be said to represent the last great phase of Indian architecture, for in these projects the Indian guild system continued to function in the traditional way.

This tenuous survival of the guild system generated much debate, which became particularly heated early in the present century, when the building of New Delhi was proposed. Students of Indian architecture, led by E. B. Havell, urged that the new capital be built in an Indian style and by Indian craftsmen, in order to stimulate the Indian arts and to provide a city better suited to its Indian context.[7] Both the King and the Viceroy (Lord Hardinge) took this idea seriously, and the Government of India commissioned an enquiry to discover whether there were a sufficient number of skilled craftsmen remaining. Daunted by the enquiry's finding that there were,[8] the Government offered a compromise: British architects were to be appointed but on the understanding that they would design in an Indian style. The architects, Edwin Lutyens and Herbert Baker, were indeed persuaded to incorporate some

244. Jaipur City Palace; Mubarak Mahal (c. 1890)



245. New Delhi; secretariat by Herbert Baker (1913–31)

Indian details into their splendid imperial scheme [245], but they were generally not sympathetic to Indian architecture, its traditions and its craftsmen,[9] and the imminent death of the Indian tradition was not averted.

To have followed Havell's advice would no doubt only have postponed that death; ignoring it confirmed finally the abandonment of the methods of the medieval guild system, and so prepared the way for the introduction into India of the international modern movement.

2. The Rajput achievement

If, in a little over a century, European influence worked many and fundamental changes in Indian architecture, then no less radical had been the effects, much earlier, of the appearance on Indian soil of another, equally alien civilization. But the impact of this earlier civilization, Islam, differed from the European impact in many respects: the Islamic tradition was both more readily and more successfully assimilated itself, and its effects were achieved more gradually. It did not remain foreign – indeed it was Indian from its inception – and it did not attempt conversion of the natives, although both it and the Hindu secular tradition were modified by their contact over time.

Thus as late as the mid-fifteenth century – the date of the oldest surviving Rajput palaces, and two hundred and fifty years after the establishment of the Delhi sultanate – the derivation of the Rajput palace style from the region's temple tradition was still plainly visible. Apart from the Islamic domes and structural arches (many of which are concealed), the forms of these early palaces at Chitor [*i*] and Gwalior are the forms of the temples adjacent to them. The temple column, introduced into the palace, was no longer adorned with images of the gods but was otherwise unchanged; even the implements of worship – the bell and chain and the *kalash* or vase – remained carved in relief on its shaft [110].

Palace architecture of this date differs from temple architecture chiefly in the arrangement of the parts and in the types of space created. In a religion with little practice of congregational worship, the temple is hardly required to create space at all; it is a monument, a sculpted mass of iconography, to be experienced rather than used [47]. In a palace, a greater spaciousness and more practical, adaptable rooms are required. Hence we find in the palaces a lighter massing – larger spaces and finer walls – and not the heavy, over-solid construction of the temples.

The progression of Rajput palace architecture towards its mature phase in the seventeenth century consisted of two major changes. The more obviously temple-derived forms – such as the columns and corbelled lintels – were gradually replaced by other forms; these others were also taken or adapted from the Indian tradition, but they are less clearly temple forms, having been more fully developed from the original temple prototype. Decorative parapets which incorporate lotus motifs [145], for example, are but a distant echo of the temple *padma* friezes from which they derive. Some of the new forms – such as the *bangaldar* roof and the cusped arch – are even of mixed Hindu and Islamic ancestry. The second major change depended upon the emphasizing of that inherent quality of the style which had always distinguished it from its temple progenitors: the lightness of form and construction was greatly enhanced; forms were attenuated and the facades were given greater spatial variety and depth [157].

These two changes were of course related: the lessening use of obvious temple forms was accompanied by another move further away from the temple's heavy massing. Thus the temple column, which a previous generation of palace builders had borrowed without deviating from the form fixed for centuries by Brahmanical

canon, now in the palaces became a stripped lean pier, its complicated form replaced by a simple elegance, its rich decoration replaced by the most chaste of mouldings [44].

If the attenuation of forms – the enhancing of lightness – had drawn on an original, inherent quality of the style in order to bring about its maturity, then it contained too the seeds of its destruction, for the exaggeration of this process led, in the eighteenth century, to weak, irresolute forms hardly more substantial than those of a stage set [166]. Having once been ponderous, the architecture later had no weight at all; the lean pier became spindly, while the arch and the dome were first flattened and finally reduced to symbolic drawings of themselves.

Throughout this process of its development, the Rajput style borrowed forms not only from the temples but also from Indo-Islamic architecture, including Mughal architecture. Some of these forms, such as the balustered column made only decorative changes [175]; while others, such as the pointed and structural arch, created substantial modifications of the style. Even so, this borrowing of forms was not the major part of the Islamic influence. That major part was surely the liberation of the style: by making Hindu architects more aware of alternatives, Indo-Islamic buildings encouraged invention in a school not previously noted for rapid change, and so made possible the swifter development of the Hindu tradition. If more examples of Hindu secular buildings had survived from the pre-Islamic era, it might even be seen that the advent of Islamic building in India transformed the Hindu secular tradition from a vernacular into a self-conscious style. Certainly, it was less a vocabulary of forms than an attitude to design and to innovation which lay at the core of Islamic influence on the Rajput palace style.

And yet Hindu conservatism is tenacious. The three centuries of the Rajput palace style saw, as described, considerable changes both in the forms employed and in the manner of their use. But they saw little other change: none in the general arrangement of the palaces, nor in their institutions. The division into public and private space survived, as did all the official apartments such as the *diwan-i-am* and the *daulat khana*; rooms were still small and designed to be versatile, and were furnished in the same way; and the planning principles – though varied to a degree from the outset – remained unaltered until the 1730s. All this points to the underlying conservatism of the Rajput style; there was no change in its aims until the period of British paramountcy. The retention of institutions is no doubt in part a reflection of the conservatism of Hindu society; but more generally, the architectural conservatism makes the Rajput palace style an all the more typical representative of the Hindu tradition.

It might reasonably be asked what the Rajput style contributed to that tradition; for it evidently invented no entirely new forms, it added nothing to the Hindu vocabulary. This does not mean that it cannot be considered an independent development: the Greek Revivalists of early nineteenth-century Britain deliberately restricted themselves to a limited and ancient vocabulary, and yet theirs is a distinct movement, a manifestation of the classical tradition, as Rajput architecture is of the Hindu. And the Rajput style did change the tradition it represents; it offered a new interpretation. Many of the inherited Hindu forms were modified, and even those which were adopted without modification were assembled in a manner not found in other Hindu buildings. Their sheer size sets the Rajput palaces apart and, above all, their treatment of massing, though varied, is always exceptional. The dependence on local folk art in the applied decoration also helps give the palaces an individual character [*x*].

It is the development of a distinct architectural style, therefore, which can be traced in the Rajput palaces: though related both to a Hindu heritage and to Islamic contemporaries, they establish an individual style. And the many stylistic connections and echoes between Rajput palaces – enumerated in the chapters above – are evidence

that the style is also consistent. Its development over time and certain regional variations, without disrupting this consistency, enrich the style: *bangaldar* roofs and *jali* screens may be found in other Rajput palaces, but nowhere in the same forms, nowhere as highly developed or as finely wrought, as in the desert palaces [144]; and further south a similarly idiosyncratic rendering is achieved in the palaces of Udaipur and Dungarpur [*xviii*].

This style stands in a relation of counterpoint with that of the generality of Mughal buildings; indeed that relation is the fullest expression of the counterpoint between the two principal architectural traditions in India, brought about chiefly by the mobility of craftsmen. And it is this assimilation of the Islamic tradition which most of all distinguishes the Rajput style within the Hindu school generally, for it was not achieved elsewhere.

It was certainly attempted elsewhere – for example, in the contemporary Hindu kingdom in the south of India, Vijayanagara; but in the Vijayanagara buildings the fusion of the two traditions is cruder. Each building is predominantly of one tradition or the other; the sixteenth-century so-called 'queen's bath', for example, despite its Hindu patronage is as Islamic in style as any Indian building can be.[10] In some – such as the Lotus Mahal (c. 1575) and the somewhat later palace at Chandragiri (c. 1620) – features from both traditions are combined in equal measure, but there is still no assimilation; the designs are irresolute and the buildings appear uncertain of themselves.

The best parallel for the Rajput architectural assimilation is to be found in Rajput miniature painting. There too, an old and local tradition – derived from medieval Jain manuscript illumination – was modified by Islamic influence but retained something of the character of its ancestry. It retained too some of its specific forms: for example, the famous enlarged, almond-shaped eye which is so characteristic of Kishangarh miniatures recalls the enlarged, protruding eye which is no less characteristic of Jain manuscript illuminations.

But although Rajput miniature painting remains stylistically distinguishable from Mughal painting – indeed even its many individual local schools may be distinguished – the Mughal influence in this field is nevertheless much more emphatic than in architecture. The traditional Rajput subjects, chiefly religious, soon concede ground to the courtly themes of the Mughal school – to portraiture and to *darbar* and hunting scenes. In composition and colour scheme too, aspects of the Mughal style are adopted, so that the Rajput heritage is often all but overwhelmed.[11]

Even more than assimilation, the most characteristic and most enduring feature of the Rajput style is that quality achieved by means of the complexity and ambiguity of its planning and spatial arrangement. The quality of elusion is no mere eastern exoticism; it is a refusal to be easily read, achieved by calculated devices. Obscuring arcades and complex forms tease and mislead the observer about the shape of a room, the plane of a facade or the direction of access. The effect is the opposite of the clear logic of Islamic buildings, where each form mirrors a previous one and enables us to predict the next. In the Rajput palaces, the picturesque variety in the advance and recess of elevations, and the complex, unpredictable spaces create a sense of mystery, reminiscent of the temple.

And so it is this character above all which distinguishes the Rajput palaces from the architecture of the Mughals. Approaching the Taj Mahal through its great southern gate, one is suddenly exposed to an almost shockingly frank revelation of beauty. But as one stands in the Chini ki Chitra Shali at the top of the Udaipur palace, looking across the varied east front, the assorted pavilions and polished walls seem to be eternally withholding some secret – as the Rajput girl one sees on turning, seems to draw the corner of her crimson *orni* across her *kohl*-lined eyes.

GLOSSARY

agni kula — the family of Agni, i.e. born of the fire god. Cf. *agni kunda* – fire-pit, the sacred fire of Mt Abu

badi (*bari*), *bagh* — garden

bagichi — pleasure garden (dimin. of *bagica*)

bangaldar — curved roof or eave, derived from a Bengali bamboo prototype

baoli — step-well

baradari — open, columned hall; strictly, with twelve openings, three on each side

bhawan (*bhavan*) — building, house

bund (*band*) — dam (lit. closed)

burj — bastion, tower

chajja — sloping projection from a facade, in the place of an eave or string-course

char rasta — crossroads

chattri (*chatari*) — lit. umbrella; a pavilion consisting of a dome supported on columns

chitra shali — picture gallery, an apartment in a palace for this purpose (dimin. of *citra sala*)

chowk (*cawk*) — open space, court surrounded by ranges

chunam (*cunam*) — highly polished white plaster

cutcherry (*kachahri*) — judicial court

daulat khana — treasury

deodhi — entrance, outer door

deval — lit. god's house, i.e. temple; also commonly, cenotaph

dharamsala — pilgrims' lodge

dharma — divine law, duty

diwan (*divan*) — minister, especially chief minister

diwan-i-am (*divan-i-am*) — public audience hall (from Persian or Arabic. Cf. *sabha niwas*)

diwan-i-khas (*divan-i-khas*) — private audience hall (from Persian or Arabic. Cf. *sarvato bhadra*)

darbar — levee; and by extension, state government

gaddi — bolster seat corresponding to a throne

gajadhara — supervising mason

garba griha — inner sanctum of a temple

garh — fort

ghat — flight of steps leading into water

gopi — milkmaid

haveli — courtyard house

hawa mahal (*hava mahl*) — palace of wind; a palace designed so as to catch the breeze

Holi — the spring festival, celebrated by the throwing of coloured water or powder at fellow players

jali — lit. net; pierced stone screen

jarokha — small, projecting balcony

jauhar — mass suicide by fire of women, to avoid capture

kanwar, *kumar*, *maharaj-kumar* — prince, heir (also called the *yuvraj*)

kanwar pade ka mahal — palace of the heir apparent

kshatriya (*ksatriya*) — warrior, a member of one of the four basic castes of Hindu society

mahal (*mahl*) — palace; used to refer either to an entire palace or to a single apartment within one

mahasati — royal cremation ground

mandala — diagram which illustrates ideas concerning cosmology

mandir — originally meant 'room', and by extension, 'palace'; but now more commonly means 'temple'

mardana — men's living quarters and ceremonial rooms

masjid — mosque; *jami masjid* – principal or congregational mosque

mohalla — quarter of a town inhabited by members of one caste

nagar — town

nakkar khana — drum house, usually situated over a gate

nautch (*nac*) — performance by dancers

niwas (*nivas*) — abode; used to refer to a small palace or to an apartment within a palace

pol — fortified gate

puja — worship, religious exercise

purdah (*parda*) — the seclusion of women

qibla — direction for Muslim prayer; the *qibla* wall is the wall at the back of a mosque sanctuary, by facing which the worshipper is facing Mecca

qila — fort

raj — rule, government

raja — king, ruler. Variants include *rao*, *rawal* (*raval*), *Rana*; the prefix *maha-* means 'great'

rani — queen, wife of a raja

rawala — women's living quarters (a rare alternative to *zenana*)

rishi (*rsi*) — forest-sage, one of the earliest Vedic bards

sabha, *s. niwas* (*s. nivas*) — public audience hall (from Sanskrit. Cf. *diwan-i-am*)

sagar — lake

samand — reservoir (from Sanskrit *samudra*)

sarahad boundary wall
sardar nobleman, lord
sarvato bhadra private audience hall (from Sanskrit. Cf. *diwan-i-khas*)
sastra science, treatise
sati self-sacrifice of a widow on her husband's funeral pyre
shali (*sali*) room (dimin. of *sala*)
sheesh mahal (*sisa mahl*) palace apartment decorated with mirror-work, often serving as a bedroom
sikhara tower of a temple
sileh khana armoury
silpa-sastra (ancient Hindu) treatise on art or craft
silpi craftsmen, artists
singh lion; the Rajput caste name (also adopted by Sikhs)
suba province
taleti quarter of a town outside the walls
torana ceremonial gateway
tripolia (*tripoliyan*) triple gate
varna caste
vastu architecture; *vastupurusha mandala* – a cosmological chart of the architecture of supreme Man
vilas house; used to refer to a pleasure palace, or to an apartment within a palace
zenana (*zanana*) women's living quarters

Names of Palaces and Apartments

Palaces and the apartments within them are commonly named after their builders, or after gods such as Ram, Shiv, Ganesh and Govind (Govind is an alternative name for Krishna). Other common names are: Badal (cloud), Chand or Chandra (moon), Chitra (painted), Juna (old), Lal (red), Moti (pearl), Phul (flower), Rang (colour), Sukh (pleasure), and Suraj or Surya (sun). These names are used in conjunction with terms such as Mahal, Mandir, Niwas and Vilas, which are defined in the glossary.

Names of apartments which indicate the function of the apartment – such as Diwan-i-Am and Daulat Khana – are also defined in the glossary.

Common names for *pols* (gates) are: Chand Pol (moon – i.e. western – gate), Suraj Pol (sun – i.e. eastern – gate) and Hathi Pol (elephant gate).

Notes

One: A General Introduction

1. Vincent A. Smith, *The Oxford History of India* (1919) 4th edn, Percival Spear, (Delhi, 1981) pp. 190–91. See also Charles Allen and Sharada Dwivedi, *Lives of the Indian Princes* (London, 1984) p. 57.
2. R. B. Singh, *Origin of the Rajputs* (Gorakhpur, 1975) pp. 9–15.
3. Smith, op. cit. p. 190
4. Ibid. p. 190.
5. Smith, op. cit. p. 192, admits the point about intermarriage but stands by the assertion quoted on the ground that the Rajput clans 'were originally descended from many distinct racial stocks'; this circumstance is not beyond dispute, but even if it were, Smith's argument would be equivalent to asserting that one could not speak of a British race because of their descent from such 'distinct racial stocks' as Norman and Anglo-Saxon.
6. The quotations from the *Bhagavad Gita* are taken from the translation by Juan Mascaro (Harmondsworth, 1962).
7. Niccolao Manucci, *Storia do Mogor* (1699–1709) transl. W. Irvine, 4 vols (London, 1907–8) Vol. 2 p. 437.
8. Babur-nama; transl. Annette S. Beveridge, *The Babur-nama in English* 2 vols (London, 1921) Vol. 2 p. 595.
9. For example, by Francis Watson, *A Concise History of India* (London, 1979) pp. 94–5; Richard Lannoy, *The Speaking Tree* (Oxford, 1971, repr. 1975) p. 69; Allen and Dwivedi, op. cit. p. 69.
10. Hugh Davenport, *The Trials and Triumphs of the Mewar Kingdom* (Udaipur, 1975) p. 63, dates the taking of Chitor from the Moris by Bappa Rawal as c. 734 AD; some writers follow Rousselet who dates it 728 AD: Louis Rousselet, *India and its Native Princes*, ed. Lt. Col. Buckle (London, 1876) p. 149.
11. In 967 the Kachwahas took the region and founded the town of Dhundar. The town of Amber was taken from the Minas not at the same time (as Rousselet, op. cit. p. 241, supposes) but in c. 1150.
12. See A. K. Roy, *History of the Jaipur City* (New Delhi, 1978) pp. 7, 44, 242. The date of Jaipur's foundation is often erroneously given as 1728.
13. Mark Girouard, *Life in the English Country House* (London, 1978) p. 12.
14. Ibid. p. 4.
15. The story is told by Rousselet, op. cit. p. 237.
16. Girouard, op. cit. p. 6.
17. See Ananda K. Coomaraswamy, *History of Indian and Indonesian Art* (1927, repr. New York, 1965) p. 15.
18. Babur-nama; transl. Beveridge, op. cit. Vol. 2 p. 520.
19. Lannoy, op. cit. p. 17.
20. 'Rajaprasasti Inscription of Udaipur', ed. N. P. Chakravarti and B. Ch. Chhabra, Appendix to *Epigraphia Indica* Vols XXIX, XXX (Delhi, 1957, 1958) Vol. XXIX Part 1, Appendix p. 3. Cf. Ratna Chandra Agrawala, 'Some Famous Sculptors and Architects of Mewar', *Indian Historial Quarterly* Vol. 33 No. 4 (Dec. 1957) pp. 321–34, pp. 331–2.
21. Gordon Sanderson, *Types of Modern Indian Buildings* (Allahabad, 1913) p. 13. Sanderson was himself quoting the Assistant State Engineer of Bikaner.
22. James Fergusson, *History of Indian and Eastern Architecture* 2 vols (1876) revised Burgess and P. Spiers (London, 1910) Vol. 2 pp. 164–85; Coomaraswamy, op. cit. pp. 121–2; Percy Brown, *Indian Architecture* 2 vols (Bombay, 1942) Vol. 2 pp. 117–24.
23. E. B. Havell, *Indian Architecture* (1913, 2nd edn London, 1927) p. 209.
24. Recently some work on the Vijayanagara complex has been done by Dr George Michell.
25. Oscar Reuther, *Indische Palaste und Wohnhauser* (Berlin, 1925) p.v. For his descriptions of the Rajput palaces see pp. 26–34, 65–71.
26. Many of them are collected in: Hermann Goetz, *Rajput Art and Architecture*, ed., Jyotindra Jain and Jutta Jain-Neubauer (Wiesbaden, 1978).
27. Lt. Col. James Tod, *Annals and Antiquities of Rajast'han* 2 vols (1829/32, repr. London, 1972).
28. Dasharatha Sharma, *Lectures on Rajput History and Culture* (Delhi, 1970).
29. Brown, op. cit. Vol. 2 pp. 117, 118, 120; Goetz, 'Bundela Art' (1938) repr. op. cit. pp. 107–20, pp. 114, 119, and elsewhere.
30. Goetz, op. cit. p. 114.
31. Megasthenes and Fa Hsien, cited in Coomaraswamy, op. cit. p. 19; Benjamin Rowland, *The Art and Architecture of India* (London, 1953) pp. 40–41.
32. See Prof. S. Siddiqui, *A Pictorial Guide to Aurangabad, Daulatabad, Ellora and Ajanta* (Aurangabad, 1977) p. 27.
33. See Coomaraswamy, op. cit. p. 15.
34. These texts are discussed in Prabhakar V. Begde, *Forts and Palaces of India* (New Delhi, 1982) pp. 49–50.
35. 'Chitorgarh Stone inscription of the Chalukya Kumarapala, Vikrama Year 1207' ed. F. Kielhorn, *Epigraphia Indica* Vol. II, ed. James Burgess (Calcutta, 1894) No. 33 pp. 421–4.
36. Evidence of this last kind is discussed by Reuther, op. cit. pp. 8–9.
37. Coomaraswamy, op. cit. p. 84; see also Rowland, op. cit. p. 40.
38. Coomaraswamy, op. cit. p. 128.

Two: Rajput and Mughal

1. For example, E. B. Havell, *Indian Architecture* (1913, 2nd edn London, 1927) pp. 56ff.; S. K. Saraswati, 'Art', *The History and Culture of the Indian People* Gen. ed. R. C. Majumdar, Vol. VI *The Delhi Sultanate* (Bombay, 1960) pp. 661–739, p. 663; Satish Grover, *The Architecture of India* (Ghaziabad, 1980) p. 171.
2. A. K. Coomaraswamy, *History of Indian and Indonesian Art* (1927, repr. New York, 1965) p. 73 and n.
3. Babur-nama; transl. Annette S. Beveridge, *The Babur-nama in English* 2 vols (London, 1921) Vol. 2 p. 520.
4. The firman is preserved in the Rajasthan State Archives; see *A Descriptive List of Farmans, Manshurs and Nishans addressed by the Imperial Mughals to the Princes of Rajasthan* Directorate of Archives, Govt. of Rajasthan (Bikaner, 1962) p. 4 serial No. 27.
5. For example, by Percy Brown, *Indian Architecture* 2 vols (Bombay, 1942) Vol. 2 p. 11; Gavin Hambly, *Cities of Mughul India* (London and Toronto, 1968) p. 15; Peter Andrews, 'The Architecture and Gardens of Islamic India', *The Arts of India*, ed. Basil Gray (Oxford, 1981) pp. 95–124, p. 98.
6. For example, by James Fergusson, *History of Indian and Eastern Architecture* 2 vols (1876, revised London, 1910) Vol. 2 p. 169; Havell, op. cit. p. 225; Oscar Reuther, *Indische Palaste and Wohnhauser* (Berlin, 1925) p. 65.
7. A. Foucher, *L'Art Greco-Buddhique du Gandhara* 2 vols (Paris, 1905/18) Vol. 1 pp. 139–45.
8. See Coomaraswamy, op. cit. Fig. 229.
9. Brown, op. cit. Vol. 2 p. 59.
10. At the east end of the palace is an arcade of cusped arches in green stone, but this *surya gokhra* (sun balcony) is evidently a much later addition.
11. Hermann Goetz, 'Bundela Art' (1938) repr. *Rajput Art and Architecture* (Wiesbaden, 1978) pp. 107–20, p. 111.
12. This small summer palace is situated at Phul Sagar.
13. Krishnalila paintings of the Jahangiri period, in Mewar style; Government of Rajasthan Museum, Kota. See especially No. 2/2 (Cat. No. 152).
14. The cusped arch appears, of course, in Muslim architecture outside India, notably in Spain and North Africa. But it is not generally a feature of Muslim architecture: it is scarce in Iran. Sheer geography suggests that its appearance in Spain and Africa was an independent development, as was its appearance in European Gothic architecture.
15. Havell, op. cit. p. vii; see also p. 207.
16. Another exception, though a partial one, is the *garh* palace of Bikaner which is built on a plain. The comparatively late foundation of Bikaner suggests that the Rajputs felt some reluctance about building in this district which lacks hills.
17. Brown, op. cit. Vol. 2 p. 23, suggests, rather, a derivation from 'the castellated palaces of the Roman and Byzantine empires, such as the palace of Diocletian at Spalato . . .'.
18. For example, by Saraswati, op. cit. p. 724; Hambly, op. cit. p. 64; Bamber Gascoigne, *The Great Moghuls* (London, 1971) pp. 35, 96; Andrews, op. cit. p. 109.
19. Fergusson, op. cit. Vol. 2 p. 177.
20. Reuther, op. cit. p. 65.
21. See above Chapter One, note 29.
22. S. K. Saraswati, 'Art' (see above) and 'Mughul Architecture', ibid. Vol. VII *The Mughul Empire* (Bombay, 1974) pp. 741–802.
23. Saraswati, 'Art' (see above) p. 724.
24. See Benjamin Rowland, *The Art and Architecture of India* (London, 1953); Heinrich Zimmer, *The Art of Indian Asia* (1955, 2nd edn Joseph Campbell, 2 vols repr. Princeton, 1983). Both surveys conclude before the Islamic conquest and so ignore later developments in Hindu architecture. Roy Craven, *A Concise History of Indian Art* (London, 1976), continues his account after 1300 but ignores late Hindu architecture to concentrate on Indo-Islamic art.
25. Reuther, op. cit. p. 67, attributes to some of the Rajput palaces a quality which, he argues, Mughal buildings lack because of their academic regularity; this quality he calls *'malerisch'*.
26. Brown, op. cit. Vol. 2 p. 120.
27. Richard Lannoy, *The Speaking Tree* (Oxford, 1971, repr. 1975) pp. 46–7.
28. Brown, op. cit. Vol. 2 p. 118.

Three: Chitor

1. See above Chapter One, note 10.
2. For modern accounts of the three sieges, with accumulated legend, see Lt. Col. James Tod, *Annals and Antiquities of Rajast'han* 2 vols (1829/32, repr. London, 1972) Vol. 1 pp. 212–21, 248–52, 258–64; Suresh Goyal, *Chittorgarh* (4th ed., Udaipur, c. 1983) pp. 14–18, 25–6, 27–8.
3. After the death of Akbar, Jahangir attempted to weaken Mewar by establishing a counter-Rana, Sagra, at Chitor; but Sagra surrendered the fort to his nephew, the legitimate Rana at Udaipur, Amar Singh I. See J. P. Stratton, *Chitor and the Mewar Family* (Allahabad, 1881) p. 53; Fateh Lal Mehta, *Handbook of Meywar . . .* (Bombay, 1888) pp. 42–3.
4. This reconstruction was in progress as Stratton wrote: Stratton, op. cit. p. 90.
5. Some writers assert that Rana Kumbha's palace represents a rebuilding of an earlier palace, and various dates are offered. See Louis Rousselet, *India and its Native Princes* ed. Lt. Col. Buckle (London, 1876) p. 192; Hermann Goetz, 'Chitorgarh' (1959) repr. *Rajput Art and Architecture* (Wiesbaden, 1978) pp. 163–4, p. 164; Hugh Davenport, *The Trials and Triumphs of the Mewar Kingdom* (Udaipur, 1975) p. 66.
6. For example, by James Fergusson, *History of Indian and Eastern Architecture* 2 vols (1876, revised London, 1910) Vol. 2 pp. 171 (plan), 172; Hermann Goetz, 'Rajput School' (1966) repr. op. cit. pp. 1–21, p. 9.
7. The implications of this are examined in Chapter Five.
8. This palace is also known as the palace of Hingal Aharia. Different authorities give different explanations for this alternative name, but none is conclusive. Cf. F. L. Mehta, op. cit. p. 3; Jodh Singh Mehta, *Abu to Udaipur* (Delhi, 1970) p. 170; Goyal, op. cit. p. 45.
9. No account is here included of Rana Kumbha's so-called Victory Tower since, despite the popular association of the tower with Kumbha's defeat of Mahmud Khilji of Malwa, it is of course a purely religious building. For an account of its true significance, see A. K. Coomaraswamy, *History of Indian and Indonesian Art* (1927, repr. New York, 1965) p. 111.
10. Bhama Shah is the man who, after the loss of Chitor, became famous as Rana Pratap's treasurer; see Davenport, op. cit. p. 71; Goyal, op. cit. pp. 34–5.
11. This process is described further in Chapter Four.
12. For Babur's account of his siege of Chanderi, see Annette S. Beveridge, *The Babur-nama in English* 2 vols (London, 1921) Vol. 2 pp. 593–6.
13. Hermann Goetz, 'Bundela Art' (1938) repr. op. cit. pp. 107–20, p. 114.
14. Chonda is sometimes referred to by means of his alternative name, Salumbar.
15. These texts are discussed by Prabhakar V. Bedge, *Forts and Palaces of India* (New Delhi, 1982) pp. 49–54.
16. P. K. Acharya, *Indian Architecture according to Manasara-Silpasastra* (*Hindu Architecture* Vol. 2) (Allahabad, 1927) p. 58.

17. The *Rajavallabha* is discussed by G. N. Sharma, *Social Life in Medieval Rajasthan* (Agra, 1968) pp. 46–7, 69.
18. See R. C. Agrawala, 'Some Famous Sculptors and Architects of Mewar', *Indian Historial Quarterly*, Vol. 33 No. 4 (Dec. 1957) pp. 321–34, p. 324; G. N. Sharma, op. cit. p. 71.
19. Bedge, op. cit. pp. 51–3.
20. They are the frescoes known as The Dying Princess (in Cave 16) and The Palace Love Scene (in Cave 17).

Four: Gwalior

1. Annette S. Beveridge, *The Babur-nama in English* 2 vols (London, 1921) Vol. 2 p. 608.
2. Ibid. Vol. 2 p. 609.
3. As Babur records: see ibid. Vol. 2 p. 477.
4. Ram Shah Tomar, of the dispossessed Gwalior line, commanded part of Rana Pratap's army at the battle of Haldighat in June 1576, and was killed, according to Abul Fazl: *The Akbarnama of Abu-l-Fazl* transl. H. Beveridge, 3 vols (Calcutta, 1907–21) Vol. 3 pp. 245–6.
5. Alexander Cunningham, *Archaeological Survey of India*, Four Reports made during the Years 1862, 63, 64, 65, 2 vols (Simla, 1871) Vol. 2 p. 330.
6. 'Bands of mosaics representing candelabra . . .'; Louis Rousselet, *India and its Native Princes*, ed. Lt. Col. Buckle (London, 1876) p. 303. His mistake is all the more surprising since he knew that the Hindus revered the crocodile, and indeed at Udaipur and Amber (see pp. 162, 235) his personal experiences with them led him to deplore 'the ridiculous religious prejudices which protect those reptiles' (p. 162). But his interpretation of the frieze is understandable, even if anachronistic.
7. Beveridge, op. cit. Vol. 2 p. 608.
8. Cunningham, op. cit. Vol. 2 p. 349.
9. Beveridge, op. cit. Vol. 2 p. 609.
10. Cunningham makes this point (op. cit. Vol. 2 p. 350) but is wrong in assuming that it was this room which Babur described as being too dark. Babur writes: 'The buildings of Man Sing's son Bikramajit [Vikramaditya] are in a central position on the north side of the fort . . . He has made a great dome, very dark but growing lighter if one stays a while in it. Under it is a smaller building into which no light comes from any side.' (Beveridge, op. cit. Vol. 2 pp. 609–10). In this account Babur seems to be confusing two distinct structures: he refers specifically to the palace of Vikramaditya – hence Cunningham's assumption that the first room described is the *baradari* – but the *baradari* has no smaller building under it. However, in the south-east portion of the Man Mandir, below the inner court, is a large round hall with a domed ceiling, which is badly lit; and directly below this is a similar but slightly smaller hall which is totally unlit. Babur is clearly describing these rooms but confuses their position with that of the *baradari* – another effect of the opium, perhaps.
11. See Percy Brown, *Indian Architecture* 2 vols (Bombay, 1942) Vol. 2 p. 6.
12. Ibid. Vol. 2 p. 60.
13. See R. Nath, *The Art of Chanderi* (New Delhi, 1979) pp. 46–7.
14. As is noted by Herman Goetz, 'Rajput School' (1966) repr. *Rajput Art and Architecture* (Wiesbaden, 1978) pp. 1–21, p. 11. For examples, one might point to the domes of the Jahaz Mahal or of the Jami Masjid, at Mandu.
15. Nath, op. cit. pp. 32–7, presents strong evidence to suggest that this palace was completed in 1499 and not, as is commonly asserted, in 1445.
16. J. B. Keith, quoted in Sir Lepel Griffin, *Famous Monuments of Central India* (London, 1886) p. 57.
17. For example, by Goetz, op. cit. p. 11.
18. It was removed between 1628 and 1647, according to Cunningham, op. cit. Vol. 2 p. 337.
19. Babur recorded that 'a sculpted image of an elephant with two drivers stands at the outgoing of this gate; it is exactly like an elephant; from it the gate is called Hati-pul.' (Beveridge, op. cit. Vol. 2 p. 609).
20. Finch writes: 'At the top of all, at the entrance of the last gate, standeth a mightie elephant of stone very curiously wrought.' William Foster, ed. *Early Travels in India 1583–1619* (Oxford, 1921) p. 144.
21. See above Chapter Two, note 18.

Five: Orchha and Datia

1. This operation is described by Abul Fazl: *The Akbarnama of Abu-l-Fazl* transl. H. Beveridge, 3 vols (Calcutta, 1907–21) Vol. 3 pp. 324–6.
2. In his history of Akbar's reign, Abul Fazl gives a much longer account of the birth of the third son, Daniyal, than of the births of either Salim or Murad: ibid. Vol. 2 pp. 502–9 (Salim), 514–5 (Murad) and 541–76 (Daniyal).
3. It is possible that the Ramji Mandir was converted into a temple for the use of the royal family at an early date, as soon as it was no longer required as accommodation. However, major alterations were still in progress in October 1983.
4. See Penelope Chetwode, 'Assassin's Palace at Datia', *Country Life* Vol. 162 No. 4192 (3 Nov. 1977) pp. 1284–5, p. 1284; and below Chapter Eleven, note 9.
5. See Percy Brown, *Indian Architecture* 2 vols (Bombay, 1942) Vol. 2 p. 121; Chetwode, op. cit. p. 1285.
6. Brown, op. cit. Vol. 2 p. 120.
7. For example, by Hermann Goetz, 'Bundela Art' (1938) repr. *Rajput Art and Architecture* (Wiesbaden, 1978) pp. 107–20, p. 111; Penelope Chetwode, 'Orchha: A City Left to the Jungle', *Country Life* Vol. 162 No. 4191 (27 Oct. 1977) pp. 1194–5, p. 1194; Prabhakar Begde, *Forts and Palaces of India* (New Delhi, 1982) p. 164.
8. Brown, op. cit. Vol. 2 p. 120.
9. This association is made specifically by Begde, op. cit. p. 165, and also referred to by Chetwode, 'Assassin's Palace at Datia' (see above) p. 1285.
10. The following account of *mandala* planning is based on the *Manasara*, a *silpa-sastra* composed between 500 and 700 AD: *Architecture of Manasara* (*Hindu Architecture* Vol. 4) transl. from Sanskrit by P. K. Acharya (Allahabad, 1933) pp. 33–57.
11. Ibid. pp. 423–31.
12. Ibid. p. 426.
13. Ibid. pp. 41–2.
14. Ibid. pp. 427–31.
15. Ibid. p. 427, *slokas* 73–4.
16. For an account of *mandala* planning in temple architecture, and of its effects on worship, see George Michell, *The Hindu Temple* (London, 1977) pp. 71–2.
17. For this comment, the author is indebted to Mr Charles Correa.
18. According to its builder, H. H. Sir Lakshman Singhji, Maharawal Sahib of Dungarpur.
19. Hermann Goetz, 'Rajput School' (1966) repr. op. cit. pp. 1–21, p. 11.
20. See M. B. Garde, *A Handbook of Gwalior* (Gwalior, 1936) p. 44.
21. Brown, op. cit. Vol. 2 p. 118.
22. See above Chapter Three, note 6.
23. For example, by Louis Rousselet, *India and its Native Princes* ed. Lt. Col. Buckle (London, 1876) p. 239; *Archaeological Survey of India* Annual Report 1925–26 (Calcutta, 1928) p. 54; G. N. Sharma, *Social Life in Medieval Rajasthan* (Agra, 1968) p. 48.
24. P. K. Acharya, *Indian Architecture according to Manasara-Silpasastra* (*Hindu Architecture* Vol. 2) (Allahabad, 1927) p. 58.

25. *Indian Archaeology 1957–58 – A Review* (New Delhi, 1958) p. 82.

Six: Amber and Udaipur

1. *The Imperial Gazetteer of India* 26 vols (Oxford, 1908–9) Vol. 24 p. 89; G. N. Sharma, *Social Life in Medieval Rajusthan* (Agra, 1968) p. 57; Hugh Davenport, *The Trials and Triumphs of the Mewar Kingdom* (Udaipur, 1975) p. 63.
2. As might be expected, the strictures of Tod are particularly severe: Lt. Col. James Tod, *Annals and Antiquities of Rajast'han* 2 vols (1829/32, repr. London, 1972) Vol. 1 pp. 255, 258–60.
3. *The Akbarnama of Abu-l-Fazl* transl. H. Beveridge, 3 vols (Calcutta, 1907–21) Vol. 2 p. 465. Abul Fazl describes Udaipur as 'the Rana's capital' but this detail may be a product of hindsight.
4. Two such paintings are found in the National Gallery of Victoria; see Andrew Topsfield, *Paintings from Rajasthan in the National Gallery of Victoria* (Melbourne, 1980) Cat. nos 113, 114 (plate p. 93; colour plate no. 1, frontispiece).
5. See the paintings referred to above, note 4, and plate 4.
6. By Hermann Goetz, 'The First Golden Age of Udaipur' (1957) repr. *Rajput Art and Architecture* (Wiesbaden, 1978) pp. 95–106, p. 99; Davenport, op. cit. p. 43.
7. See above Chapter Four.
8. It is true that Louis Rousselet, *India and its Native Princes* ed. Lt. Col. Buckle (London, 1876) p. 239, counts four domes, but it is impossible to know whether he was including or excluding those on the smaller towers in the middle of the ranges. Furthermore, Rousselet visited Amber after it had been abandoned, and so after alterations and additions had ceased there; so if he is counting four corner domes then he is unreliable in this instance.
9. National Museum, Delhi; Paintings, Acc. No. 56.93/1 *The Court of Rama*, Mughal, c. 1600 AD.
10. The names of the two intermediate rajas are according to Hermann Goetz, 'The policy of the Grand Mughals *vis-à-vis* the Rajput States' (1948) repr. op. cit. pp. 39–51, p. 45. The dates of the reign of Jai Singh 1 are a matter of some disagreement. Most authorities give 1667/8 as the date of the end of the reign; see, for example, *The Imperial Gazetteer of India* Vol. 13 p. 385. Some have ventured 1625 for the beginning of the reign; see, for example, James Fergusson, *History of Indian and Eastern Architecture* 2 vols (1876, revised London, 1910) Vol. 2 p. 177; Goetz, op. cit. p. 45. However, 1625 is too late: two firmans now preserved in the Rajasthan State Archives are addressed from Jahangir to 'Raja Jai Singh' as ruler of Amber, and are dated early in 1623, showing that he had succeeded to the *gaddi* by that year. See *A Descriptive List of Farmans, Manshurs and Nishans addressed by the Imperial Mughals to the Princes of Rajasthan* Directorate of Archives, Govt. of Rajasthan (Bikaner, 1962) p. 1 serial nos. 1 and 2.
11. Rousselet, op. cit. p. 237. The story is recounted similarly, though apparently independently, by Oscar Reuther, *Indische Palaste und Wohnhauser* (Berlin, 1925) p. 70
12. See above note 10.
13. Percy Brown, *Indian Architecture* 2 vols (Bombay, 1942) Vol. 2 p. 119.
14. Hermann Goetz, for example, describes the Amber Diwan-i-Am as 'directly inspired by the Mughal architecture of Fatehpur Sikri'; 'Rajput School' (1966) repr. op. cit. pp. 1–21, p. 12. Anticipating Brown and Goetz, Reuther, op. cit. p. 69, draws a similar conclusion.
15. See, for example, Brown's analysis of the Jahangiri Mahal (the portion of the palace in the Agra fort built by Akbar but named after his successor), op. cit. Vol. 2 p. 93; and of Jodh Bai's palace at Fatehpur Sikri, ibid. p. 95.
16. Ibid. Vol. 2 p. 119.
17. Hermann Goetz, 'Bundela Art' (1938) repr. op. cit. pp. 107–20, p. 114.
18. It is attributed to Jai Singh 1 by Fergusson, op. cit. Vol. 2 p. 117; Roy, op. cit. p. 228; Prof. L. F. Rushbrook Williams, *A Handbook for travellers in India . . .* (22nd edn London, 1975) p. 269.

    It is attributed to Sawai Jai Singh II by Rousselet, who refers to it as the 'Sowae (i.e. Sawai) Gate', op. cit. p. 241; *The Imperial Gazetteer of India* Vol. 5 p. 290.

    Goetz, 'Rajput School' (see above) p. 15, impossibly attributes the gate to Jai Singh II and the Sohag Mandir to Jai Singh 1; whilst this may cause one to wonder how he supposes the upper storey was supported before the lower one was built, it is a measure of how easily one may forget that the gate and the pavilion are a single structure.
19. The drawings are preserved in the Sawai Man Singh II Museum, Jaipur.
20. Sawai Man Singh II Museum, Jaipur, Lib. 77, Lib. 78, Lib. 83.
21. Sawai Man Singh II Museum, Lib. 76.
22. Abul Fazl 'Allami', *Ain I Akbari* transl. H. Blochmann and H. S. Jarrett, 3 vols (Calcutta, 1873–94) Vol. 1 pp. 308–526.
23. Pratap Singh allegedly persuaded the treasurer, Bhama Shah, to give him access to the state treasure: Davenport, op. cit. p. 71.
24. The Rana, Amar Singh 1, was not required to submit to Jahangir in person, but allowed to do so through his son, Karan Singh, so that the Rana should be spared the humiliation: J. P. Stratton, *Chitor and the Mewar Family* (Allahabad, 1881) pp. 57–9; Bamber Gascoigne, *The Great Moghuls* (London, 1971) p. 138.
25. The name Choti Chitra Shali is often applied to Mor Chowk; for example by Fateh Lal Mehta, *Handbook of Meywar . . .* (Bombay, 1888) p. 15; Jodh Singh Mehta, *Abu to Udaipur* (Delhi, 1970) p. 145. This name more properly applies to one of the cloisters: that separating Mor Chowk from the Surya Chopar.
26. See Topsfield, op. cit. Cat. Nos. 166, 167, pp. 118, 118–19, plates pp. 118, 29. These paintings show views across Mor Chowk to the Manak Mahal. (The appearance in the Manak Mahal of the royal emblem which actually hangs in the Surya Chopar, is a mark of artistic licence.) Cf. Cat. no. 273, pp. 164–5, a painting datable to 1855, which shows the same view after the alterations had been made.
27. Goetz, 'The First Golden Age of Udaipur' (see above) p. 104.
28. See Topsfield, op. cit. Cat. No. 244, p. 154, plate p. 155.
29. This pavilion is also known as the Chini ki Chitra Mahal/Shali.
30. For example, by Rushbrook Williams, op. cit. p. 213; Michael Wright, 'Palaces of the Rajput Princes', *Country Life* Vol. 165 No. 4255 (25 Jan. 1979) pp. 212–14, p. 213.
31. According to an inscription inside, the temple was consecrated in VS 1709 (1652 AD). See 'Jagannatharya Inscriptions at Udaipur' ed. A. K. Vyas, *Epigraphia Indica* Vol. XXIV, ed. N. P. Chakravarti (Delhi, 1942) No. 11 pp. 56–90, p. 57.
32. Ibid. p. 63.
33. G. N. Sharma, *Mewar and the Mughal Emperors* (Agra, 1954) pp. 144–6.
34. This has been asserted by Rousselet, op. cit. p. 156; Stratton, op. cit. p. 63; *The Imperial Gazetteer of India* Vol. 24 p. 102; J. S. Mehta, op. cit. p. 148; and many others.
35. G. N. Sharma, op. cit. p. 145.

Seven: Jaisalmer, Bikaner and Jodhpur

1. See Lt. Col. James Tod, *Annals and Antiquities of Rajast'han* 2 vols (1829/32, repr. London, 1972) Vol. 1 p. 553, Vol. 2 pp. 10–11. This allegation is strenuously denied by Bisheshwar Nath Reu, *Glories of Marwar and the Glorious Rathors* (Jodhpur, 1943) p. x.
2. See Gordon Sanderson, *Types of Modern Indian Buildings* (Allahabad, 1913) pp. 12–15, 19.
3. See above Chapter Five, note 24.
4. For example, by R. A. Agarawala, *History, Art and Architecture of Jaisalmer* (Delhi, 1979) p. 46; Prabhakar V. Begde, *Forts and Palaces of India* (New Delhi, 1982) p. 120.
5. The view of Jaipur includes the Ishwar Lat, showing that the murals were painted after the building of that tower by Maharaja Sawai Ishwar Singh of Jaipur (1743–50).
6. This dating agrees with Percy Brown, *Indian Architecture* 2 vols (Bombay, 1942) Vol. 2 p. 118.
7. For example, by Hermann Goetz, *The Art and Architecture of Bikaner State* (Oxford, 1950) p. 71.
8. National Museum, Delhi; Painting 63.1735.
9. Some authorities attribute the Karan Mahal to the later raja, Anup Singh: Goetz, op. cit. p. 72; Vijai Shankar Srivastava, 'Junagadha Fort, Bikaner', *Son of the Soil, Maharaja Ganga Singh* ed. Y. P. Singh (Bikaner, 1981) pp. 225–8, p. 227. However, they give no reason and the attribution is unlikely: apartments of Rajput palaces were usually named after their builder.
10. The dates of Anup Singh's reign are disputed. Those given here follow *The Imperial Gazetteer of India* Vol. 8 p. 206; K. K. Sehgal, *Bikaner* (Rajasthan District Gazetteers, Jaipur, 1972) p. 39; Srivastava, op. cit. p. 227.

    Cf. Goetz, op. cit. p. 70, who gives 1674–98.
11. This hall is attributed to 'the late Maharaja' (Sadul Singh, 1944–50) by Prof. L. F. Rushbrook Williams, *A Handbook for travellers in India* . . . (22nd edn London, 1975) p. 262. However, Srivastava, op. cit. p. 228, asserts that Ganga Singh celebrated his golden jubilee in it.
12. Goetz, op. cit. pp. 69, 70.
13. For example, by Srivastava, op. cit. p. 227.
14. Goetz, op. cit. p. 69.
15. G. N. Sharma, *Social Life in Medieval Rajasthan* (Agra, 1968) p. 46.
16. These three ranges are often referred to as the Moti Mahal after the *sabha* of that name which forms the west range of the *chowk*. However, the three ranges form a unified structure distinct from the *sabha*, and so merit a separate name.
17. For accounts of Jaswant Singh's career and the Mughal occupation of Jodhpur, see *Hukamat Ri Bahi* (c. 1707 AD) ed. Satish Chandra, Raghubir Sinh, G. D. Sharma (Delhi, 1976) pp. 244–56; Kaviva Jagjeevan Bhatt, *Ajitodaya Mahakavyam* (c. 1725 AD) ed. Nityanand Dadlich, revised L. Narayan Dixit (Jodhpur, 1980) pp. 2–5; Reu, op. cit. pp. xxx–xxxvii. Jodhpur had twice before been occupied by imperial forces; under the Suris in 1544–6 and under Akbar in 1565–83.
18. According to local tradition, this mosque was built during the earlier, Sur occupation. However, its large size and its style suggest a later date. In addition, the building of an unnecessary mosque in a prominent position in a Hindu capital would have been a characteristic act on Aurangzeb's part.
19. For example, by Lt. Col. Archibald Adams, *The Western Rajputana States* (London, 1899) p. 83; *The Imperial Gazetteer of India* Vol. 14 p. 199; Begde, op. cit. p. 116. It is possible that these writers mean to refer not to the Moti Mahal but to the three ranges here called the Moti Vilas; however, the attribution of the Moti Vilas to Sur Singh is equally untenable for the same reason, that the cusped arches are of a form not found so early.
20. Adams, op. cit. p. 84, asserts that the Chokelao Mahal was built by Ajit Singh but subsequently altered. R. A. Agarawala, *Marwar Murals* (Delhi, 1977) pp. 30–31, dates the paintings flanking the main entrance as early nineteenth-century.
21. This dating agrees with Hermann Goetz, 'The First Golden Age of Udaipur' (1957) repr. *Rajput Art and Architecture* (Wiesbaden, 1978) pp. 95–106, p. 105 n. 7.
22. Penelope Chetwode, 'Orchha: A City Left to the Jungle', *Country Life* Vol. 162 No. 4191 (27 Oct. 1977) pp. 1194–5, p. 1195.
23. See Chapters Five and Nine.

Eight: Dungarpur, Bundi and Kota

1. The *Rajaprasasti* asserts that Dungarpur was founded by one Mahup, who was deprived of the *gaddi* of Chitor by his younger brother, Rahup; and that these two were the sons of Karan Singh and grandsons of Samar Singh, who helped Prithviraj III of Delhi attempt to defend Delhi against Muhammad Ghuri (i.e. in 1192 AD). Other inscriptions, however, give quite different genealogies.

    Cf. 'Rajaprasasti Inscription of Udaipur' ed. N. P. Chakravarti and B. Ch. Chhabra, Appendix to *Epigraphia Indica* Vols XXIX, XXX (Delhi, 1957, 1958) Vol. XXX Part II Appendix pp. 93–4; 'First and Third Slabs of the Kumbhalgarh Inscription v.s. 1517' ed. A. K. Vyas, ibid. Vol. XXIV ed. N. P. Chakravarti (Delhi, 1942) No. 44 pp. 304–28, pp. 312–13; 'Jagannatharya Temple Inscriptions at Udaipur' ed. A. K. Vyas, ibid. Vol. XXIV (see above) No. 11 pp. 56–90, p. 58. See also *The Imperial Gazetteer of India* Vol. 24 p. 88.
2. Tod suggests a third possibility, that the name is derived from *dungri* – a mountain: Lt. Col. James Tod, *Annals and Antiquities of Rajast'han* 2 vols (1829/32, repr. London, 1972) Vol. 1 p. 211 n. 2.
3. Jagat Singh's operation is recorded in the *Rajaprasasti*: 'Rajaprasasti Inscription of Udaipur' (see above) Vol. XXX Part II, Appendix p. 97.
4. Kumbha's defeat of Bundi is recorded in the Kumbhalgarh inscription; see Har Bilas Sardar, *Maharana Kumbha* (2nd edn Ajmer, 1932) p. 180 and Appendix V.
5. Tod, op. cit. Vol. 1 pp. 247–8, records the details of the earlier quarrel (it was over a woman).
6. For a fuller account of the implications of such conversions, see the end of Chapter Five.
7. The upper storey of the Udaipur gate is built of inferior materials and may be a later addition; in its original form the gate would then have resembled even more closely the Dungarpur Tripolia.
8. The dates of Chatar Sal's reign are disputed. Those given here follow *The Imperial Gazetteer of India* Vol. 9 p. 80; Brij Mohan Singh Parmar, 'Murals of Hadoti', *Cultural Heritage of Hadoti* ed. Gahlot, Gahlor and Gahlot (Jodhpur, 1976) pp. 35–8, p. 35. Cf. Hermann Goetz, 'Rajput School' (1966) repr. *Rajput Art and Architecture* (Wiesbaden, 1978) pp. 1–21, p. 16, who gives 1652–58.
9. In view of the dependence, in this apartment, on Rajput precedents, and the use of Hindu forms and construction methods, it is surprising that Hermann Goetz singles out this part of the palace as being in 'the Moghul style': Goetz, op. cit. p. 16. He does not make clear what aspect of the apartment he is referring to.
10. Rudyard Kipling, *From Sea to Sea* 2 vols (New York, 1907) Vol. 1 p. 174.
11. This painting is reproduced in Andrew Topsfield, *Paintings from Rajasthan in the National Gallery of Victoria* (Melbourne, 1980) Cat. No. 52 p. 57 and plate

p. 23. The buildings depicted are not in fact 'the *zenana* quarters' (p. 57); the painting is an unusually faithful portrayal of the *mardana*.

12. The foundation stone of the Kota Hawa Mahal was laid by Maharao Ram Singh (1827–65) in VS 1921 (1864 AD) according to an inscription now preserved in the Govt. of Rajasthan Museum, Kota (Cat. No. 404). Hermann Goetz, 'Late Indian Architecture' (1940) repr. op. cit. pp. 167–88, p. 177, attributes the building to Maharao Umed Singh I (1770–1819).

Nine: Jaipur

1. In a letter to an official at Ajit Singh's, published in Bisheshwar Nath Reu, *Glories of Marwar and the Glorious Rathors* (Jodhpur, 1943) Appendix B.9 pp. 113–18.
2. This line occurs in the *Bhojansara*, written by Girdhari in 1739. A section of the poem is rendered in Hindi and in English in A. K. Roy, *History of the Jaipur City* (New Delhi, 1978) Appendix VII pp. 233–5. The MS. is in the Bandharkar Oriental Research Institute, Poona (Roy, op. cit. p. 248).
3. See above, Chapter One, note 12.
4. According to Joseph Tieffenthaler, who visited Jaipur not long after its completion: Joseph Tieffenthaler, *La Geographie de l'Indoustan* transl. (from Latin into French) Jean Bernoulli, *Description Historique et Geographique de l'Inde* Vol. I (Berlin, 1786) p. 315.

   Furthermore, Roy argues that a plan of Jaipur (kept in the Sawai Man Singh II Museum, Jaipur) which is dated 1725 on the back is not a design drawing but a progress report, and so concludes that building had begun by 1725, and that the date November 1727 marks the official foundation ceremony: A. K. Roy, 'Town Planning in Jaipur', *Cultural Heritage of Jaipur* ed. Jai Narayan Asopa (Jaipur, 1982) pp. 43–7, p. 46.
5. The account occurs in the *Sivaha Hazuri*, a day-to-day record of the activities of the Maharaja; referred to in Roy, *History of the Jaipur City* (see above) pp. 52–3.
6. Roy, op. cit. p. 45.
7. See, for example, Satish Davar, '"A filigree city spun out of nothingness"'. *Marg* Vol. XXX No. 4 (Sept. 1977) pp. 35–58, p. 57. The issue of the original colour of Jaipur is discussed by Yaduendra Sahai, 'Pink City: Its original colour and allied problems', *Cultural Contours of India* ed. Vijai Shankar Srivastava (New Delhi, 1981) pp. 396–400.

   Another account of the theory that the city was changed from cream to pink is given by Michael Carapetian, 'Jaipur: The Pink City', *The Architectural Review* Vol. CLXXII No. 1027 (Sept. 1982) pp. 35/9–43/9, p. 42/9 n. 4. Carapetian writes: 'An alternative view is that the city was originally painted light cream. But later in order to reduce the glare, Jai Singh's successor Man Singh II experimented by painting parts of the city different colours, finally choosing pink for the whole city.' This account is inaccurate. Man Singh II ruled from 1922 to 1949 (d. 1970); the experiment described was undertaken by Ram Singh II (1835–80) in 1868, but the colour pink was not then 'finally' chosen but rather restored after the experiment (see Sahai, op. cit. p. 398).
8. See Sahai, op. cit. p. 397.
9. See Tieffenthaler, op. cit. pp. 314–18.
10. These paintings are described by Sahai, op. cit. p. 397.
11. The best of it is by Roy, in: op. cit. Chapter II (pp. 31–62); and 'Town Planning in Jaipur' (see above). Other authors are referred to above and below.
12. For example, Roy, 'Town Planning in Jaipur' (see above) p. 43, asserts that town planning was a novel idea in eighteenth-century India and that 'Jai Singh had practically no model to copy'; and Sahai, op. cit. p. 396, asserts that Jaipur represents the first introduction of method in Indian town planning.
13. The term 'city' is used throughout this work to indicate the importance of the towns as state capitals, and should not be taken as an indication of their size. In some cases – especially where the town was abandoned as the capital before the dissolution of the state, as at Amber and Orchha – the 'city' has dwindled to little more than a village.
14. A further modern quarter has grown up outside the city wall. Similar modern growths are found around other Rajput capitals.
15. P. K. Acharya, *Indian Architecture according to Manasara-Silpasastra* (*Hindu Architecture* Vol. 2) (Allahabad, 1927) p. 39.
16. See G. N. Sharma, *Social Life in Medieval Rajasthan* (Agra, 1968) p. 46.
17. See Amita Ray, *Villages, Town and Secular Buildings in Ancient India* (Calcutta, 1964) p. 81.
18. Lt. Col. James Tod, *Annals and Antiquities of Rajas-t'han* 2 vols (1829/32, repr. London, 1972) Vol. 2 p. 537.
19. These are kept in the Sawai Man Singh II Museum, Jaipur.
20. *The Imperial Gazetteer of India* Vol. 13 p. 400, asserts that the principal streets are 111 feet wide, the secondary ones 55 feet wide and the smallest 27½ feet wide. Roy, *History of the Jaipur City* (see above) pp. XI, 46–7, points out that this is not quite correct: the principal streets vary from 107 to 108 feet wide and the widths of the smaller streets are rarely exact fractions of these figures.
21. See above note 2.
22. This theory was initiated by E. B. Havell, *Indian Architecture* (1913, 2nd edn London, 1927) p. 224. Havell is echoed by Claude Batley, *The Design Development of Indian Architecture* (1934, 3rd edn London, 1973) p. 27; by Prabhakar Begde, *Forts and Palaces of India* (New Delhi, 1982) p. 124; and, with reservations, by Carapetian, op. cit. pp. 36/9, 42/9 n. 2. The *prastara* is described in the *Manasara: Architecture of Manasara* (*Hindu Architecture* Vol. 4) transl. from Sanskrit by P. K. Acharya (Allahabad, 1933) pp. 85–7; and is illustrated by Ram Raz, *Essay on the Architecture of the Hindus* (London, 1834) plate XLV. Ram Raz's diagram is somewhat inaccurate; it bears little resemblance to the form described in the *Manasara*, despite Ram Raz's claim, p. 45, that it is based on the *Manasara's* account. It was Ram Raz's diagram which gave Havell his idea that the plan of Jaipur is a *prastara*, but Ram Raz cannot be blamed for this: his diagram does not bear much resemblance to Jaipur either.
23. *Architecture of Manasara* (see above) p. 86.
24. *Arthasastra* Chapter 2, v. 29; quoted in Sharma, op. cit. p. 45.
25. *Architecture of Manasara* (see above) Chapter 9, pp. 63–92.
26. Sharma, op. cit. p. 46.
27. Roy, op. cit. pp. XI, 38 and 'Town Planning in Jaipur' (see above) p. 44.
28. *Architecture of Manasara* (see above) pp. 33, 36. A part of the account of the *pitha* is missing from the original text of the *Manasara*, but as the *pitha* is one of a series of plans its form can be deduced without doubt. The series is explained, pp. 33–57.
29. Ibid. pp. 63–92.
30. Ibid. p. 85.
31. Vidyadhar is referred to by name in Girdhari's *Bhojansara* – see Roy, *History of the Jaipur City* (see above) Appendix VII pp. 233–5; and in Krishna Bhatta's *Ishwar Mahakavya* – see Roy, op. cit. pp. 42–3.
32. In a letter from Jai Singh to the merchant Ghasiram Murlinder; see Roy, op. cit. p. 52. The nature and extent of Vidyadhar's involvement in the building of Jaipur are analysed by Roy, op. cit. pp. 41–3.
33. Roy, op. cit. Appendix IX p. 240.

34. For example, by A. K. Roy, 'The Dream and the Plan', *Marg* Vol. xxx No. 4 (Sept. 1977) pp. 25–6, p. 26; and Carapetian, op. cit. p. 36/9.
35. Roy, *History of the Jaipur City* (see above) Appendix VII p. 235.
36. See Louis Rousselet, *India and its Native Princes* ed. Lt. Col. Buckle (London, 1876) p. 225.
37. Davar, op. cit. pp. 37–9; Carapetian, op. cit. p. 36/9.
38. Tod, op. cit. Vol. 2 p. 583.
39. *Architecture of Mansara* (see above) p. 87.
40. See Gayatri Devi, *A Princess Remembers* (1976, 3rd edn Ghaziabad, 1983) p. 242.
41. *Architecture of Manasara* (see above) Chapter 9 pp. 63–92; see especially pp. 70–71, 74–6.
42. See Sharma, op. cit. pp. 46, 47.
43. Rousselet, op. cit. p. 153.
44. Ibid. p. 226.
45. For an account of Man Singh's career, see M. L. Sharma, *History of the Jaipur State* (Jaipur, 1969) pp. 47ff.
46. By Carapetian, op. cit. p. 36/9; and Davar, op. cit. p. 43.
47. For example, by Maharaja of Baroda, *The Palaces of India* (London, 1980) p. 30; Sylvia A. Matheson, *Rajasthan* (London, 1984) p. 188.
48. See above Chapter Eight, note 12.
49. The Rajendra Pol was built during the reign of Raja Sawai Ram Singh II (1835–80). The Mubarak Mahal was built as a guest house by Lala Chiman Lal c. 1890, with some degree of assistance from Jacob; it now houses the Maharaja Sawai Man Singh II Museum.

Ten: Dig and Bharatpur

1. The Rajasthan State Archives in Bikaner has copies of two firmans instructing the raja of Amber to suppress the Jats. One is dated AH 1098 (1687 AD) and the other AH 1138 (1727 AD): see *A Descriptive List of Farmans, Manshurs and Nishans addressed by the Imperial Mughals to the Princes of Rajasthan* Directorate of Archives, Govt. of Rajasthan (Bikaner, 1962) pp. 56, 59 serial nos. 5, 35.
2. They claimed descent from Madan Pal, a son of an eleventh-century Rajput ruler of Bayana, twenty-five miles south-west of Bharatpur. They may have been related also the Bhatti Rajputs of Jaisalmer. See *The Imperial Gazetteer of India* Vol. 8 pp. 74–5; Babu Jwala Sahai, *History of Bhurtpore* (2nd edn Calcutta, 1898) pp. 42–3.
3. A treaty with the British was signed in 1803, broken in 1804 and ratified in 1805.
4. There are two further palaces within Bharatpur fort, one on either side of Badan Singh's palace and more recent in date. Sir William Sleeman, who visited them early in the last century, explains the need for three buildings: 'one for the chief, another for the females of his family, and the third for his court of justice' – Major General Sir W. H. Sleeman, *Rambles and Recollections of an Indian Official* (1844, revised Vincent A. Smith, 1915, repr. 1980) p. 361. The first palace referred to by Sleeman is that of Badan Singh; the second, to the east of it, now houses a hospital; and the third, to the west, is the Kamra, built by Maharaja Balwant Singh (1826–53) and now housing a museum.
5. M. C. Joshi, *Dig* Archaeological Survey of India (3rd edn New Delhi, 1982) pp. 4, 5, 20, believes that the Suraj Bhawan was first built at the earliest by Suraj Mal and encased in marble by Jawahir Singh (1763–8). However, encasing it in marble was an extensive remodelling, and it is likely that the building would bear the name of the ruler responsible; it is, of course, named after Suraj Mal.
6. This hypothesis was first constructed by James Fergusson, *History of Indian and Eastern Architecture* (1876, revised 2 vols London, 1910) Vol. 2 pp. 178–9; and is repeated by Joshi, op. cit. p. 14; and others.
7. Archaeological Survey of India, *Indian Archaeology 1954–55 A Review* ed. A. Ghosh (New Delhi, 1955) p. 34.
8. This process is traced by Elizabeth B. Moynihan, *Paradise as a Garden in Persia and Mughal India* (London, 1982).
9. Megasthenes, quoted in Moynihan, op. cit. p. 91.
10. Kalidasa, *Sakuntala* transl. Michael Coulson, *Three Sanskrit Plays* (Harmondsworth, 1981) pp. 121–43.
11. Bana Bhatta, quoted in Prabhakar V. Begde, *Forts and Palaces of India* (New Delhi, 1982) p. 51.
12. *Ramayana*, Book IV, section 28.
13. An inscription on the swing attributes it indirectly to Shah Jahan, and it is supposed that the swing was plundered from Agra; see Joshi, op. cit. p. 18. That it was originally constructed under Mughal patronage does not, of course, impair the swing's role in the Hindu symbolical system of its new context.
14. This conclusion is reached by Joshi, op. cit. p. 12.

Eleven: Postscript

1. These are discussed in detail by Jutta Jain-Neubauer, 'Wall painting at the Deolia palace', *The India Magazine* Vol. 4 No. 4 (March 1984) pp. 38–45.
2. Rajput wall painting of this period is the subject of recent work by Dr Joachim Bautze.
3. The attribution of the Gaj Vilas to Maharawal Gaj Singh (1820–46) – suggested by the name of the apartment – is also given by R. A. Agarawala, *History, Art and Architecture of Jaisalmer* (Delhi, 1979) p. 46; but Agarawala goes on to suggest, impossibly, 1884 as the year of construction. This probable misprint has been copied by subsequent studies.
4. By Agarawala, op. cit. p. 46; Prabhakar V. Begde, *Forts and Palaces of India* (New Delhi, 1982) p. 120.
5. This palace, known as the Kamra, stands to the west of Badan Singh's palace. See above Chapter Ten, note 4.
6. A somewhat different assessment of these buildings is given by Banmali Tandon, 'The architecture of the Nawabs of Avadh between 1722 and 1856 AD' Ph.D. thesis, University of Cambridge, October 1978.
7. E. B. Havell, *Indian Architecture* (London, 1913) pp. 242–9, 251–4; see also the chapter added in the 2nd edn (London, 1927) pp. 258–69.
8. The enquiry was undertaken by Gordon Sanderson and J. Begg; their findings were published as *Types of Modern Indian Buildings* (Allahabad, 1913). For their conclusions, see pp. 20–22.
9. Lutyens's views on Indian architecture are quoted in Mary Lutyens, *Edwin Lutyens* (London, 1980) pp. 104, 142.
10. This and other buildings at Vijayanagara are discussed by George Michell, 'Vijayanagara: the architectural record', *South Asian Studies* Vol. 1 (1985) pp. 19–41.
11. For a discussion of the relation of Rajput to Mughal miniature painting, see Andrew Topsfield, *Indian Court Painting* (London, 1984) pp. 30–35 and passim.

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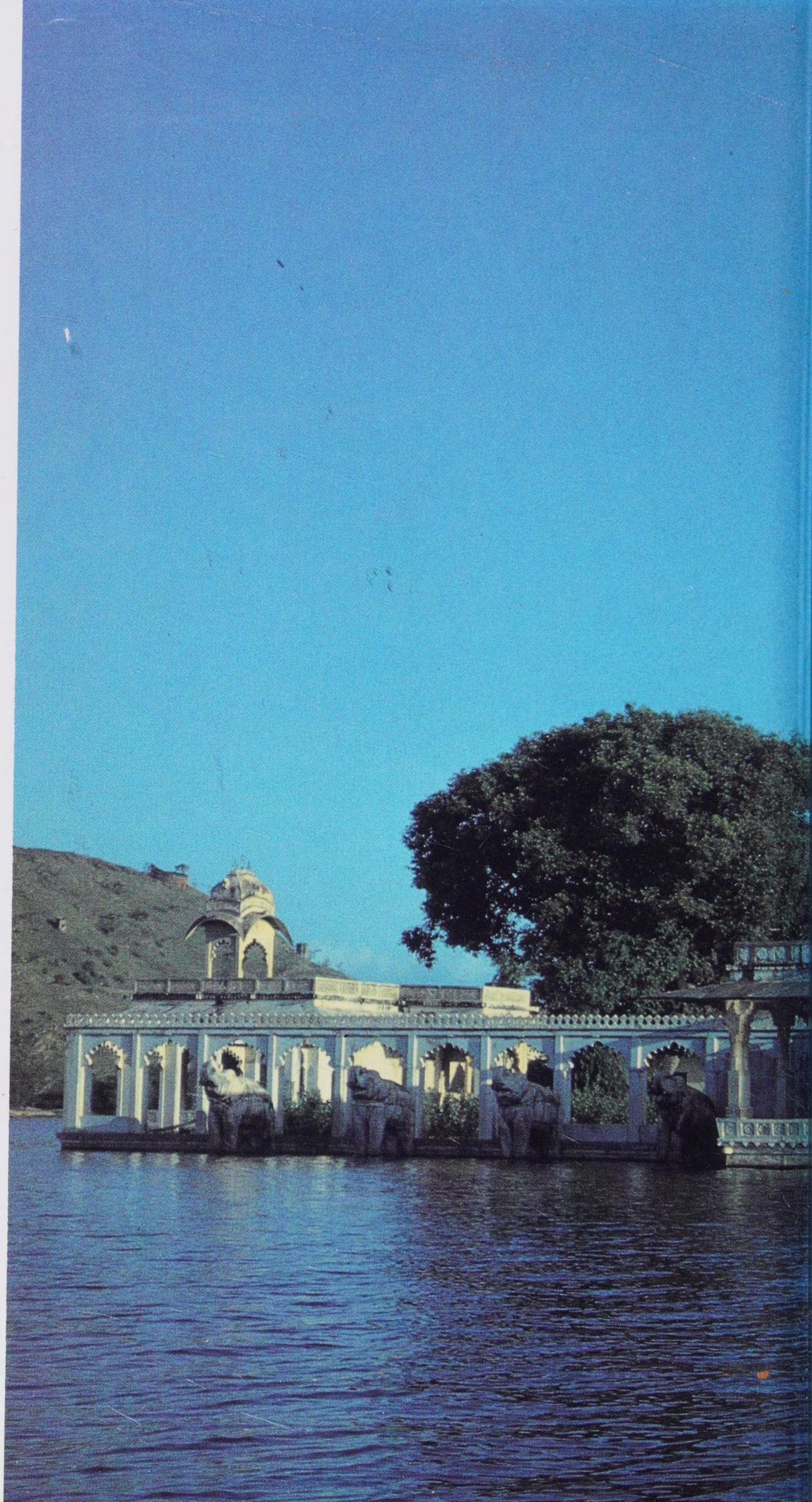
Printed in Great Britain

Yale University Press
New Haven and London
ISBN 0 300 03738 4